Addis Ababa University

College of Business & Economics

Department of Accounting & Finance

(GRADUATE PROGRAM)

"Factors affecting the implementation of integrated financial management information system in Ethiopian Public Sector"

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December, 2017

Addis Ababa, Ethiopia

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Statement of Declaration

I, **Mohammed AlemuWussien**, have carried out independently the research work entitled "***factors affecting the implementation of integrated financial management information system (IFMIS) in Ethiopian public sectors***" by special focus on ministry of finance and economic cooperation (MOFEC) in partial fulfillment of the requirement of the M.Sc. program in Accounting and Auditing with the guidance and support of the research advisor.

This study is my original work and that has not been presented for any degree or diploma program in this or any other university/institutions, and that all source of materials used for the thesis have been duly acknowledged.

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Statement of Confirmation

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School of Graduate Studies

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M.Sc. program in Accounting and Auditing

This is to confirm that **Mohammed AlemuWussien**has carried out his research work on the topic entitled **"*Factors affecting the implementation of integrated financial management information system (IFMIS) in Ethiopian public sectors*"**. The work is original in nature and is suitable for submission for the reward of the M.Sc. Degree in Accounting and Auditing.

Confirmed by Advisor:

Name: **Sewale Abate (PHD)**

Signature: _____

Date: _____

December, 2017

Addis Ababa, Ethiopia

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Acronyms and Abbreviation

AIS – Accounting information Systems

B2B – Business - to – Business

B2C – Business - to – Customer

BOFED – Bureau of Finance and Economic Development

CFS – Critical Success Factors

CoA – Chart of Account

EMCP – Expenditure Management Control Programs

ERP– Enterprise Recourses Planning

FGE – Federal Government of Ethiopia

GPPDS/ PPPDS – Government/Public Property Procurement & Disposal Services

GTP – Growth and Transformation Plan

IBEX – Integrated Budget and Expenditure

ICT – Information and Communication Technology

IFMIS – Integrated Financial Management Information System

IMF – International Monetary Fund

ITU – Information Telecommunication Union

MOFED/C – Ministry of Finance and Economic Development/Cooperation

PFM – Public Finance Management

PPC – Percent Plan Complete

TCT – Transitional Computer Technology

SPSS – Statistical Program for Social Science

WB – World Department

Abstract

Sound integrated financial management information systems (IFMIS) can not only help developing country governments gain effective control over their finances, but also enhance transparency and accountability, reducing political discretion and acting as a deterrent to corruption and fraud. The county governments of Ethiopia have been required by the Public Financial Management (PFM) Act, 2011 to implement IFMIS since 2015 when they became operational, but the implementation process has so far been ineffective. This study therefore aimed at examining how ICT Infrastructure, Government Policy, Capacity and skills of IFMIS Users, Top Management Commitment, Implementation Strategy, Staff-Resistance and other factors affect the effective implementation of IFMIS in Ethiopian public sectors especially on Ministry of Finance and Economic Cooperation (MOFEC). Therefore the scope of the study was limited on ministry of Finance and Economic cooperation departments who use the system. In this study the researcher have try to reviews the existing literature, information and publication on the topic related to the research problem by accredited scholars and researchers so as examines what various scholars and authors have said about examining factors affecting Integrated Financial Management Information System implementation, in particular it covers the theoretical review of literature, conceptualization of research problem, empirical review of the literature , critique of existing literature, the research gaps and conceptual framework of independent & dependent variables of the study. The study employed a descriptive research design. The target population was users of IFMIS in all directorates of Ministry of Finance and Economic Cooperation which use the system. A Purposive sampling so as to select the targeted directorates and Random sampling from each directorates with total of the 88 employees who use IFMIS in each directorates was done. Primary and secondary data was collected by means of document review, observation, questionnaire & interview and was analyzed using descriptive statistics using SPSS version 17 and excel. And the analysis shows the current IFMIS implementation of the organizations negatively influenced by all these factors. The study recommends for adequate top management strong commitment and technical staff in planning & implementation, proper leadership for the project team, enough computers and software for the staff and proper systems approach of planning, scheduling of IFMIS and review of government policy according to IFMIS requirement. Additionally, study recommends for similar studies to be undertaken in other ministries for generalization of the findings of this study. And the last the researcher show reference used for the study and appendix.

Keywords: *Integrated Financial Management Information System, ICT Infrastructure, Government Policy, Capacity and skills of IFMIS Users, Top Management Commitment, Implementation Strategy, Staff- Resistance, Pilot ministries, Ethiopia.*

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Governments in developing countries like Ethiopia are increasingly exploring methods and systems to modernize and improve public financial management. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (IFMIS) as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting.

The Federal Government of Ethiopia accounting system used the former system IBEX up to GC 2012 was in service for more than 10 years. Government decided that there was a need to reform the former accounting processes (IBEX) as an integral part of the Civil Service Reform towards the new accounting system which is the Integrated Financial Management Information System (IFMIS). Because due to the limitation of the former accounting system and to add new standard features of accounting system our government decided to change the previous accounting system after 10 years use. This new system is an integrated public financial management system being implemented by Federal Government of Ethiopia (FGE).

A financial management information system, or *integrated* financial management information system (IFMIS), is an information system that tracks financial events and summarizes financial information. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed. The term “IFMIS” also refers to the use of information and communications technology in financial operations to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements. In the government of Ethiopia realm, IFMIS refers more specifically to the computerization of public financial management (PFM) processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for financial management of public organization operation.

In Ethiopia this new public financial system, Integrated Financial Management Information System, which is an initiative of Expenditure Management Control Program (EMCP)cover the Financials, Supply Chain and Payroll modules spanning to 6 Federal Ministries and 2 regional BoFED as pilot implementations starting from November 2011. Still some Public Service organizations are busy with the implementation of IFMIS. However, the implementation of such a project has proved to be a very demanding undertaking and has not been met with resounding success. And the scope and functionality of an IFMIS varies across countries, but normally it represents an enormous, complex, strategic reform process (Chêne 2009. The sheer size and complexity of an IFMIS poses significant challenges and a number of risks to the implementation process that goes far beyond the mere technological risk of failure and deficient functionality in Ethiopia.

The introduction of an IFMIS can be regarded as an organizational reform which deeply affects work processes and institutional arrangements governing the management of the Ethiopian public finance. Challenges and obstacles can have a devastating effect on the success of the implementation and management of the process and should not be underestimated (Rodin- Brown 2008; Hove & Wynne 2010).Various factors determine the success of IFMIS development and implementation in Ethiopia starting from November, 2011 up to the current time. Within 5 years the Ethiopian government can implement this integrated financial management system in 11 public bodies, 6 branches of Ethiopian revenue & Custom Authority and the Ethiopian Road Authority plus in Addis Ababa University. But, the effectiveness of this implementation is not good due to different factors.

In this research the researcher want to identify some of the challenges and to propose solutions that can serve as best practice guidelines in the implementation of an IFMIS. The research problem that this study aims to address is to identify the challenges relating to the implementation of IFMIS and to propose best practice guidelines that will facilitate a successful implementation of IFMIS in Ethiopian Public Sector. The methodology used is that of a literature study where theories are explored and used to solve a research problem. According to Cooper and Schindler (2006) theory is a set of systematically inter-related concepts, definitions and propositions that are advanced to explain or predict phenomena

(facts). Good theories and models provide causal accounts of the world, allow one to make predictive claims under certain conditions, bring conceptual coherence to a domain of science and simplify our understanding of the world (Mouton 200).

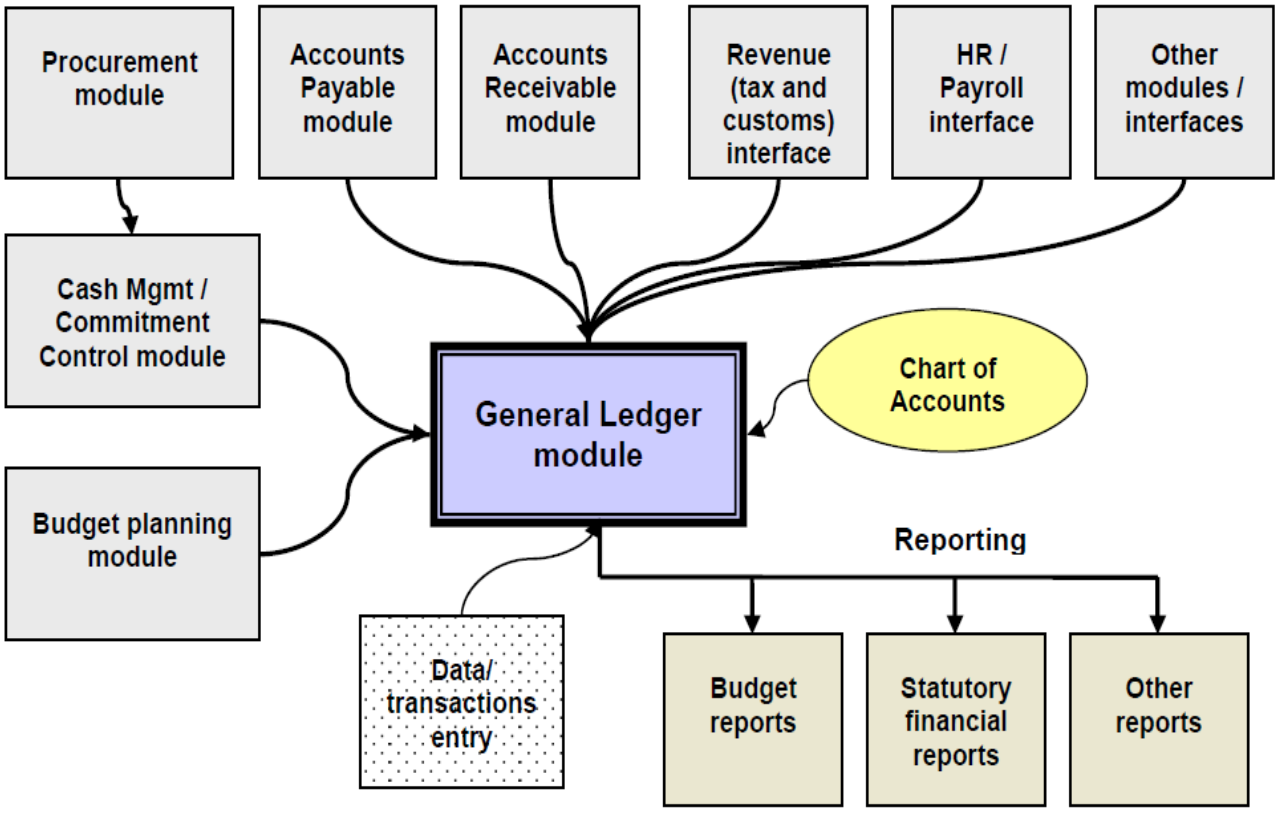


Figure 1: ***IFMIS Modules that used in Ethiopian Public Sector***

1.2.STATEMENT OF THE PROBLEM

There is a broad agreement that a fully functioning IFMIS can improve governance by providing real-time financial information that managers can use to administer programs effectively, formulate budgets, and manage resources. The Ministry of Finance and Economic Cooperation is charged with the responsibility of providing proper budgetary and expenditure management of government financial resources. However, the Government of Ethiopia has for a long time been much concerned over the persistent poor performance in financial management due to lack of reliable and timely information for decision making. And as review by the Ministry of Finance and Economic cooperation - financial

management, accounting systems and role of audits report before 2010, revealed weaknesses in the management of financial information and reporting for decision making.

In this regard, the ministry has been continually striving to improve financial management systems through various public financial sector reform programmers', aimed at increasing transparency, accountability, as well as responsiveness of public financial resources by standard data classification for recording financial events, internal controls over data entry, transaction processing & reporting and common processes for similar transactions and a system design that eliminates unnecessary duplication of data entry to enhance the quantity and quality of public service delivery to meet its developing priorities. Since 2011, during the starting time of GTP, Ethiopia has been implementing a project for the "strengthening of government finance and accounting functions" in the first time on six pilot sites: Ministry of Finance Economic Cooperation (MOFEC), Ministry of Health (MOH), Ministry of Education (MOE), Ministry of Public Service and Human Development (MPSHD) formerly named Ministry of civil Service, Ethiopian revenue & Custom Authority (ERCA) and Ethiopian Road Authority (ERA). This is for the purpose of improving management, accountability, and transparency of public funds.

During the first two phases over the first four years (2011, 2012, 2013 & 2014), a number of diagnostic reviews were conducted and a financial management system was developed. The implementation phase has raised a number of issues from IMF & World Department and professional consultants but the system has been implemented and is being used in some ministries with some difficulties. On the other hand, the government has over the years introduced and implemented reforms in all the ministries through the ministry of finance and economic cooperation in order to increase the accountability and transparency in the use of government funds. However, in spite of all these government efforts to modernize and develop financial frameworks in the public financial management through the ministry of finance & economic cooperation, the implementation of IFMIS which was to increase efficiency and effectiveness in service delivery remains a pipe dream. That is why the IFMIS implementation program was to be rolled out in all the government ministries within a period of five years (Ministry of Finance & Economic cooperation GTP Plan 2011-2015) which is

also extended to the next 5 years since the expected objective do not achieved due to different challenges. Therefore this study aimed at ***the factors which affect integrated financial management information system (IFMIS) implementation in Ethiopian Public Sector***since this systems is a new system for Ethiopian public sector there is no any research previously done on this issue, that is why the researcher focus on the factors affecting integrated financial management information system (IFMIS) implementation in Ethiopian Public Sector.

1.3.RESEARCH QUESTIONS

- Is there any users of IFMIS resist on the implementation of the system in Ethiopia Public organizations?
- Does the capacity and skill of users influence the effective implementation of IFMIS in Ethiopia Public organizations?
- Does information communication technology infrastructure influence effective implementation of IFMS in the Ethiopian public sector?
- Is the efficiency and effectiveness of the implementation of IFMIS in the County influenced by Top Management commitment?
- Does government policy determine IFMIS implementation in the Ethiopian public sectors?
- What is the effect of implementation strategy on the effective implementation of IFMIS in the Ethiopian public sectors?

1.4.RESEARCH OBJECTIVE

1.4.1. GENERAL RESEARCH OBJECTIVE

The general objective of this study was to assess the factors that affect the implementation of integrated financial management information system in Ethiopia Public Sector.

1.4.2. SPECIFIC RESEARCH OBJECTIVES

- ✓ To assess the effect of staff resistance on the implementation of IFMIS in Ethiopia Public Sector.
- ✓ To determine the influence of capacity and skills of IFMIS users on its implementation Ethiopia Public Sector.
- ✓ To establish the implication of ICT infrastructure on the implementation of IFMIS in the public sectors of Ethiopia.
- ✓ To assess the effect of top management commitment on the implementation of IFMIS.
- ✓ To establish the influence of government policy on performance of Integrated Financial Management Information System in the public sectors of Ethiopia.
- ✓ To explore the influence of implementation strategy on performance of Integrated Financial Management Information System in the public sectors of Ethiopia.

1.5. SIGNIFICANCE OF THE STUDY

The study is of value to Policy/decision makers because it aims to give recommendations on some best practices that can be adapted for effective implementation of IFMIS. It also offers a chance for strategic policy considerations related to the influence/power of ICT in Ethiopia. This study also gives insights to the government institutions specially MOFEC, the responsible government organization of IFMIS implementation, on how they can form a foundation for enhancing effective implementation of IFMIS throughout the country. It would act as a guide to the government (MOFEC) on how they can offer or mitigate polices that affect business re-engineering, how IFMIs users' resistance reduced, how these users' skills improved and how to increase the availability of ICT infrastructure for effective implementation of IFMIS. It is hoped that the findings of the study would make valuable additions to the existing literature and stimulate further interest in ICT based initiatives. The study is a source of reference material for future scholars or academicians on other related topics; it can also help others who will undertake the same topic in their studies. The results of this study can be used by academics to discuss on the factors affecting the performance of IFMIS implementation in Ethiopia. The study also highlights other important relationships that require further study.

1.6. SCOPE OF THE STUDY

The scope of this study is limited to all Ministry of Finance and Economic Cooperation departments/directorates that use IFMIS as system of record since all Ministry of Finance and Economic Cooperation department play and take a responsibility to make IFMIS implement roll out throughout Ethiopian Public sectors and MOFEC lead as the owner for the effective implementation which spent more than 5 consecutive year to implement IFMIS successful and the user of this public sector still have an issue on system. It covered all the concerned department of MOFEC. This study focus on the users of IFMIS in each department/directorate of MOFEC purposely selected financial users, planning users, property Admin users, and procurement users, top management users, self-service users, system administrator users and setup users on the implementation of the integrated financial management information system. Within this scope and problem of the study the researcher will propose to finish his study up to end of January 31, 2017.

1.7. LIMITATION OF THE STUDY

In spite of the fact that, every study has its own limitations, no study can be perfect. A limitation for the purposes of this study was regarded as any factor that was present from the onset and affected or could have affected the attainment of research objectives.Thesematters and occurrences are out of researcher control which limit the extensity of the study can go and may affect the end result & conclusion of the study. This has also been carried out with the following limitations:

- All statistical procedures have limitations; so also do research strategies, such as survey or grounded theory studies (Creswell, 2003). Moreover, the purposive sampling procedure to limit the scope of the study, decreases the generalizability of findings and this study might not be generalizable to all areas of IFMIS users.
- Since IFMIS is new for the country, the researcher may not give adequate recommendation for the research outcomes due to lack of sufficient knowledge and know how about the system.
- Some targeted respondents were reluctant to share sensitive information while others misinterpret the intentions behind the research and refuse to provide accurate

information for fear of disclosure besides assurances of confidentiality. However, by discussing the relevance of the study to the respondents it will help to provide the required information.

- Another problem that limited the scope of the study was unavailability of any organization who effectively implements the system to compare the challenges on effective implementation of this system.
- Besides, lack of research studies and availability of sufficient current literature on the topic were some of the constraints.

CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

This chapter reviews the existing literature, information and publication on the topic related to the research problem by accredited scholars and researchers. This section examines what various scholars and authors have said about factors affecting the implementation of Integrated Financial Management Information System**,** in particular it covers the theoretical review of literature, conceptualization of research problem, empirical review of the literature , critique of existing literature and the research gaps.

2.2. THEORETICAL REVIEW

This section reviews theories related to the study. A formal theory is syntactic in nature and is only meaningful when given a semantic component by applying it to some content such as facts and relationships of the actual historical world as it is unfolding. According to Brown-Jeffy, S., & Cooper, J. E. (2011), defines a theory as a set of interrelated concepts which can be used in the study, definitions, prepositions that have been put forth to explain or predict a scenario under study. The theories for this study will include; Resource based view theory, E -Technology Perspective Theory, Last planner Theory and Weick's model Theory of Organizing.

2.2.1. Resource based View Theory

Resource based theory argues that's that a firm has the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, imperfectly imitable and non-substitutable Berchicci, L. (2013). The supporters of these arguments argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it (Vogel &Guttel, 2013). The goal of an organization is to ensure it has access to and control of valuable resources by developing and securing all the relevant resources either internally or externally. If a firm possess critical resources that have strategic value, it is better to retain the activity in house (Ullrich, 2013).

On the contrary, if the strategic value of target activities is low and no internal resources are available to perform such activities, it is beneficial for the company to outsource them. For the sustainable competitive advantages, firms are forced to rely on a multitude of outside supplier for parts, software, knowledge and sales and in doing so gain access to valuable resources and external capabilities (Gariga&Mele, 2013).

The source of an organization's competitive advantage lies mainly in how it exploits its distinctive internal resources and competencies, by setting strategic objectives based on what they enable it to (Gariga&Mele, 2013). The resource-based approach starts with the organization's strengths and seeks an environment that will enable it exploit them by changing environments to suit what it does best rather than changing what it does best to fit the environment (Kehoe & Wright, 2013). One of the key insights of the resource-based view is that not all organizational resources are a potential source of competitive advantage. The above theory relates to human resource capacity on performance of Integrated Financial Management Information System implementation.

2.2.2. The E -Technology Perspective Theory

E-Technology lacks an overarching definition and encompasses a wide range of business activities. For example, (O'Neil & Perez, 2013) state that e-procurement remains a first generation concept aimed at buyers, which should progress into e-sourcing and ultimately into e-collaboration. E- Collaboration allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Saurin&Henringson, 2013). The internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries. Despite the fact that business-to-business (B2B) trade has enjoyed a quieter existence online than business-to-consumer (B2C) the benefits of IFMIS in a public setting are significant (Holland & Kaplan, 2013). Indeed it has been claimed that ICT has become the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that allows buyers and suppliers to work to optimum and mutually beneficial prices and schedules.

Usually organizations or governments adopt IFIMS systems to manage the purchase of low critical products and services. In summation it is noted that the extent of e-IFMIS adoption remains in a formative stage, falling short of the type of e-sourcing and e-collaboration suggested by (Foss &Kruesden, 2013). Common IFMIS and e-procurement tools are online catalogues and direct auctions, where reverse auctions remain unpopular with sellers. IFMIS implementation is characterized by the direct and indirect public sector divide, where firms tend to use online systems for uncritical items (Gariga&Mele, 2013). The transition to IFMIS calls for strategic adaptation and well laid infrastructure. It is one strategy, though, that requires much organizational change (Janita& Miranda, 2013). The above theory relates to the Information Communication Technology infrastructure on effective implementation of Integrated Financial Management Information System.

2.2.3. Last Planner Theory

A theory, often called Last Planner, for project management and implementation, has been developed by Ballard (Korinek& Mendoza, 2013). At first sight, Last Planner deviates from the conventional project management doctrine in terms of planning, execution and control. The term Last Planner refers to the hierarchical chain of planners, where the last planner acts at the interface to execution. Thus, this method concentrates on the detailed planning just before execution, rather than the whole planning process. In look ahead planning, the prerequisites of upcoming assignments are actively made ready, in other words, they are transferred to the can category this, in fact, is a pull system that is instrumental in ensuring that all the prerequisites are available for the assignments. Kerzner (2013) states in a study on Project management: a systems approach to planning, scheduling, and controlling finds out that Project management goes beyond managing the technical aspects of implementation. In conventional project management, the plan pushes tasks to execution; only the should category is recognized.

Theoretically interpreting, the execution phase in Last Planner is similar to the language/action perspective model in that communication is a two-way process, and commitment is created for the realization of the tasks within the planning conversation where plans prepared by one crew are understood as promises to others and through the obligation

to report on the completion of the task .Control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes(Cope & James, 2013). Here a metrics called Percent Plan Complete (PPC) is used. In conventional project management, main control consists of comparing progress with the performance baseline, expressed in money or hours. Theoretically interpreting, Last Planner is using the scientific experimentation model of control. The above theory relates to the influence of implementation strategy on performance of Integrated Financial Management Information System implementation in public sector.

2.2.4. Weick's Model Theory of Organizing

One of the sophisticated theories of organizational structure is Weick's model theory of organizing. It takes into account the high-stressed, fast-paced nature of today's business and reduces equivocality. Equivocality boils down to any lack of productivity due to an employee, on any level, having to check with superiors which is brought about by bureaucracy and unaligned organizational structure which greatly affect the management style of the organization. In the Weick's model, there is an information system, which includes frequently and sometimes previously tackled issues (Langley, Smallman, Tsoukas& Van de Ven, 2013). Employees have access to this information and use it to combat any ambivalence or inertia that might hinder making business decisions. The decisiveness gained by using the information system leads to higher productivity due to ease with which structures and policies can be modified to suit the prevailing or anticipated needs. The Wieck model theory of organizing relates to the government policy on performance Integrated Financial Management Information System.

2.3. REVIEW OF EMPIRICAL STUDIES

In a research by Kimwele in 2011 about *Factors Affecting Effective Implementation of IFMIS in Government Ministries in Kenya*, he found out that the level of awareness by employees of the Government ministries was 100%. He also found out that 70% of the departments used IFMIS. 73% of the respondents to the research questions said that there was sabotage of IFMIS. 37% of the respondents said that IFMIS supported proper planning of work. There is a great percentage of abuse of the system but IFMIS offers security to personal data

(Kimwele, 2011). In his research, Kimwele put forward several factors which are important in IFMIS implementation.

2.3.1. Capacity and technical skills

In Ethiopia, the experience of the design, development and pilot implementation of IFMIS has not been satisfying. In the design of IFMIS, the existing manual budget execution and accountability processes seem to have been automated to a large extend without consideration of whether there was a better and more efficient method of achieving the required results.

A fast review of the system conducted by IBEX&IFMIS project office with the help of an outside expert in January 2013, revealed a number of problems with the functionality of the system resulting into the delay of the roll out. In general the implementation phase has not progressed well primarily because of clearly limited involvement & some neglect of the system by the main players including the ministry of finance, accountant general and pilot ministries. There is need that introduction of an IFMIS be accompanied by strong commitments, sufficient manpower and financial resources, widespread internal support & an agenda for effective change management (World Department, 1994). The conclusion from the World Department and Department for International Development, indicate that only 21% of IFMIS projects were successful & that out of the 21% successful only 6% of the projects were considered sustainable (Dorotinsky, 2003).

2.3.2. Complexity of the system

In its main report on the 2013 Country Integrated Financial Assessment, The World Department commented that, “The IFMIS is highly complex, sophisticated and expensive. Having chosen this route, the Government of Ethiopia must overcome a number of major challenges to fully realize the benefits of the system while ensuring the security is not compromised. From an accounting financial reporting perspective failure to address specific issues relating to the sustainability, functionality and extension of the system are liable to result in higher rather than lower levels of fiduciary risk”. Further the associated country financial accountability assessment reported the following risk: “should the IFMIS fail there

is no current back up at the moment other than the continued use of existing systems in parallel" (GAO, 2004).

2.3.3. Motivation of the work force

Diamond and Khemani (1999) in a World Department study on the introduction of IFMIS in five countries recommended that: "careful evaluation of the salaries and package for the relevant staffing both public and private sector should be done including an assessment of the implications of improved salaries for the broader public sector environment. Such a strategy would aim at striking balance between the need to attract/retain qualified staff".

2.3.4. Summary of Literature Review

A well-Integrated Financial Management Information System will support government wide as well as agency level policy decisions. It will also integrate budget and budget execution data, allowing greater financial control and reducing opportunities for discretion in the use of public funds. This system will provide information for budget planning, analysis and government wide reporting. It will also facilitate preparation of financial statements and provide a complete audit trail in order to facilitate audits. The above studies provide an important aspect regarding IFMIS and its components. They also provide results and conclusions of research done on IFMIS in different countries and environments. None of the studies have tackled effects of IFMIS on the financial management of the public sector in Ethiopia. It is against this backdrop that this research will seek to fill the existing gap by seeking to establish the level of success of IFMIS in financial management in the public sector in Ethiopia.

2.4. RESEARCH GAP AND STUDY JUSTIFICATION

Previous studies have adequately described the numerous drivers and barriers for implementation of IFMIS in most African countries but there is no studies have adequately described the numerous drivers and barriers for implementation of IFMIS Ethiopia. The review of the relevant research in the field shows that scholars focused either on challenges and conducted their analysis from a single perspective or investigate them by looking at only one of the aspects of their application – effects and positive side of implementing IFMIS in

public sector (Maake, 2007; Farelo& Morris, 2006; Chene,2009; Sanwal 2007, Rose & Grant,2009). According to International Telecommunication Union (ITU), (2012) observes that a sound regulatory environment and stable institutions are the key factors driving ICT investment. Gerster Consulting, (2008) also recommended that African Governments and their international partners create and support enabling environments, consisting of both ICT-specific regulatory frameworks and an overall policy framework that promotes sound economic and political governance However, these studies were not conducted on in Ethiopia which is a unique field by itself. This study therefore sought to fill the gap by the factors affecting IFMIS implementation of Ethiopian public sectors. Therefore the researcher justification on the research project started by describing on FGE focus which is the Federal Government of Ethiopia accounting system used the former system IBEX up to GC 2012 which was in service for more than 10 years. After 10 years use our government decided to change the previous accounting system due to the limitation of the former accounting system and to add new standard features of accounting system. So the Government decided that there was a need to reform the former accounting processes (IBEX) as an integral part of the Civil Service Reform towards the new accounting system which is the Integrated Financial Management Information System (IFMIS) with a big cost which is more than 17,632,450.50 USD or 29,228,032.50 ETB for the remaining Federal public bodies implementations. That is why my research project focus on this.

And also this new system being implemented by Federal Government of Ethiopia (FGE) to achieve many objectives such as: Standardizing the processes across all Ministries on the financial accounting and reporting; Enables all Federal Public Bodies and Regions to use a single system with extensive reporting facility from the same physical source; Facilitate fast and quality reporting procedures &facilitate financial statement preparation within and across the ministries; Provide orientation and facilitation to the other Ministries which are not under pilot sites to become part of Future IFMIS; Improve internal controls by reviewing the roles and responsibilities of staff working in the accounts department and introducing enhanced procedures to capture and approve transactions as well manage and control fixed assets and their depreciation; Produce accurate, timely and complete information and improve the quality of information provided to Government and its development partners to

create a platform that allows for better decision making based on timely, accurate and comprehensive information and Integrate budget and budget execution data allowing greater financial control and reducing opportunities for discretion in the use of public funds and to provide information for budget planning ,analysis and government wide reporting. However the expected objective of this project still in progress after five years implementation. And pilot ministries implementation does not provide orientation and facilitation to the other Ministries which are not under pilot sites to become part of Future IFMIS due to lack of trust on the project. Because from MOFEC assessment report on the effectiveness of Implementations on pilot ministries some public bodies IFMIS users want to use the former line item budgeting for budget management, some duplicate item and Supplier creations and miss arrangement between fixed assets & inventory and internal employee as a supplier created like external supplier on the system and more customization made on the system due to IFMIS users initiations.

In addition accordingly, when the reforms to the accounting system was jointly developed and designed by the Transitional computer technology (TCT) and the IFMIS Project Team in GC 2012 Ministry of Finance Economic Cooperation (MOFEC), Ministry of Health (MOH), Ministry of Education (MOE), Ministry of Public Service and Human Development (MPSHD), Ethiopian revenue & Custom Authority (ERCA) and Ethiopian Road Authority (ERA), selected as pilot implementation site and staring from go live period. These pilot site still need support from MOFEC and MOFEC key user's stile busy in supporting these pilot site end users. This is the additional cost for the project. There for due to such and such effects the researcher initiated to make a research how this project problem reduced; why the effectiveness of IFMIS still in equation to achieve the expected objective: what are the Implementations factors which lead such effect and reduce the effectiveness of IFMIS and what measures should be taken so as to reduce the implementation factors of the Project.

2.5. CONCEPTUAL FRAMEWORK

Conceptual framework as a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. According to Gallarza&Saura (2013) defined a conceptual framework as a virtual or written product, one

that explains, either graphically or in narrative form, the main things to be studied- the key factors, concepts, or variables and the presumed relationships among them. Conceptual frameworks, according to educational researcher Yadav (2010) are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aim (Van Kamp & De Hollander, 2003).

A conceptual framework is a diagrammatical research tool intended to assist the researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. A conceptual framework is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. It can be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. The interconnection of these blocks completes the framework for certain expected outcomes. In the context of the current study, the researcher describe four independent factors and one dependent variable as illustrated in ***Figure 2***so as to assess how this factors affect the implementation of IFMIS in Ethiopian Public Sector as follows.

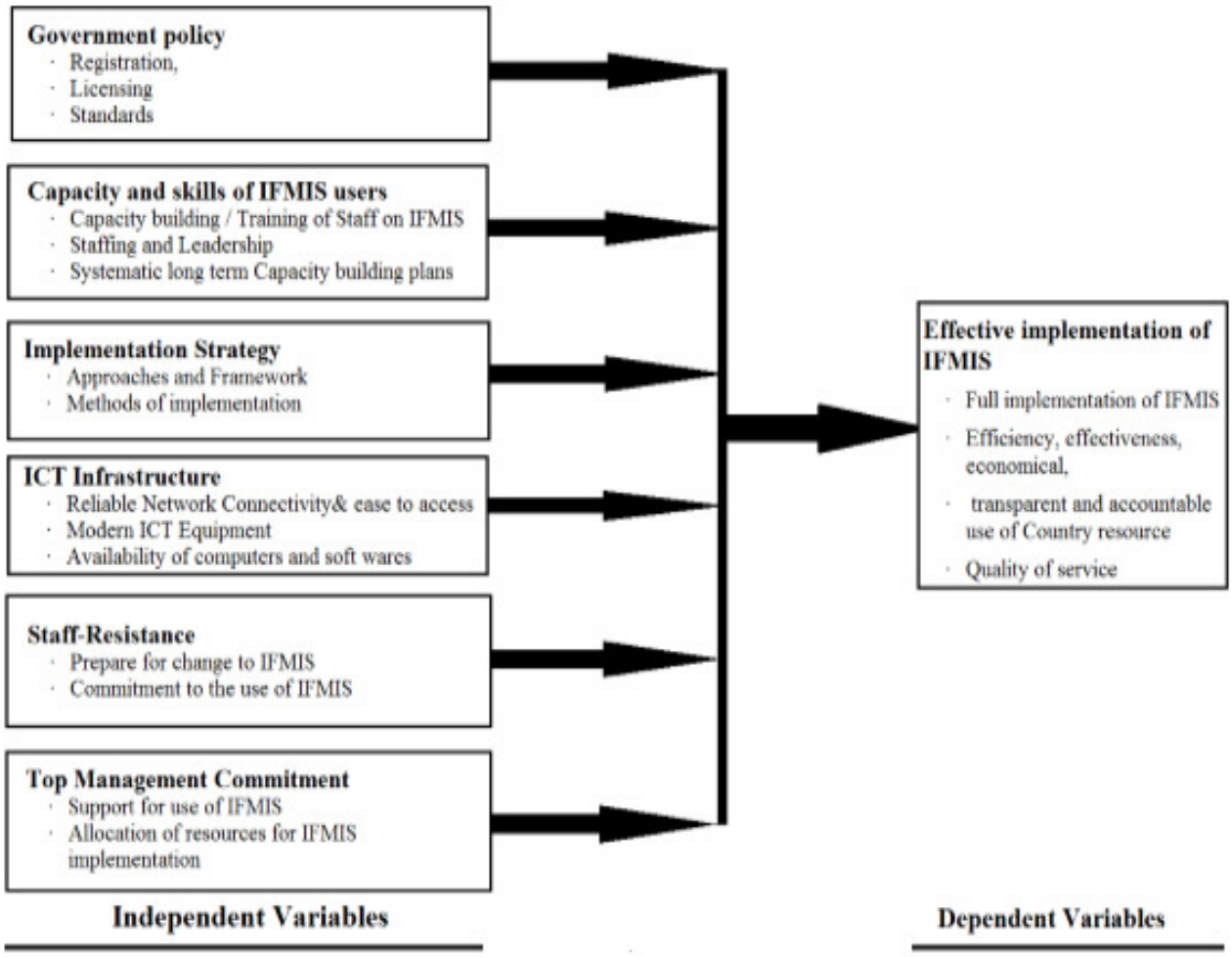


Figure 2:*Conceptual frame work (Dependent variable & Independent Variable)*

Source: John GakuuKaranja and Eva NyamburaNg'ang'a (2014)

This research variables were in tandem with both the main objective and specific objectives of the study. These independent variables which were government policy, Implementation Strategy, ICT Infrastructure, top management commitment, capacity & skills of IFMIS users and staff resistance are the researchers focus in this study. And these independent variables were in line with research specific objectives. The dependent variable was the effective implementation of IFMIS which was presumed that all listed independent variables influenced IFMIS implementation in Ethiopian Public Sector.

2.5.1. Capacity and skills of IFMIS users

The effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. The lack of staff with IT knowledge and experience cannot be easily remedied by training and hiring. The salary structure and terms of employment in the public sector are usually not attractive enough to compete with the private sector and to incentivize candidates with the required IT-skills levels (Chêne 2009). Trained personnel also leave the government service, often for better job opportunities. Sigei (2013) argues that low capacity for system implementation at the sub-national level, such as provincial and regional governments, is one of the major challenges in the implementation of an IFMIS in developing countries. Hove & Wynne(2010) contend that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within government.

2.5.2. ICT Infrastructure

According to Wafula&Wanjohi (2009) around the world, governments are undertaking ambitious reforms to further revitalize or transform their public sectors. The drivers for reform include: on the demand side – the increasing expectations by citizens for efficient and effective services and for a voice in their design and delivery, and on the supply side – the increasing pressures on government budgets, more severe since the global financial crisis, requiring that they do more with considerably less.

To accomplish this revitalization, governments are introducing innovations in their organizational structures and practices, and in the ways in which they mobilize, deploy and utilize human, financial and ICT resources (United Nations 2011). The use of ICT in the public sector, or e-government as it is known, is playing a critical role in governments' efforts to revitalize their public sectors. Modern ICT is a significant strategic tool for lifting public sector performance, offering benefits of greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organizational boundaries and levels of government, and greater transparency and accountability in government functions (Ameen& Ahmed, 2011). Consequently, over the past 10 to 15 years, governments around the world have utilized information and

communication technologies, particularly digital technology (OECD 2009) which have significantly changed the ways in which. A second key issue that has emerged is achieving greater citizen engagement in public policy processes through the latest Web 2.0 tools. E-government is no longer viewed only as the provision of information or services via the internet but as a way of transforming how citizens interact with government and how government interacts with itself (Rose and Grant 2009). The new social media tools have the potential to transform public policy processes by making government far more responsive and participatory. Web 2.0 offers unprecedented opportunities to open government decision making to the community allowing citizens to engage more directly and collaboratively with public servants.

Many IFMIS projects have failed because the basic system functionality was not clearly specified from the onset of the intervention. Chêne (2009) posits that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf (OTS) or custom-built systems that fit the requirements of the specific country. An analysis of the different systems used by developing countries indicates that they make use of both off-the shelf systems as well as custom-built systems. For example, Ghana and Uganda opted for a system designed and developed to fit their specific requirements, whilst Tanzania, Malawi and Kenya opted for off-the shelf systems. It is important to note that a determining factor in the success of the implementation is not in the type of system, (i.e. off-the-shelf or custom-built) but rather in the complexity of the system. One of the reasons for the success of Tanzania's project is, for example, their decision to purchase a less complex, mid-range commercial package (Dzidonu, 2011).

2.5.3. Government policy

It is important to have clear legal guidance on the roles and responsibilities of all institutions involved in the implementation of an IFMIS. According to Dzidonu(2011)a legislative framework consists of the constitution, finance act and regulations, and needs to include: the roles and responsibilities, of the treasury, and other departments responsible for the control

and management of public finance, the main form of government funds, receipt and custody of public funds, the annual process, submission and approval of estimates and the procedures for release of funds, the basis of accounting and the form of annual accounts for audit and presentation to Parliament and asset management and control, borrowing and investment.

Legal reforms, however, are seldom simple or swift, but this process need not obstruct IFMIS implementation. In Ethiopia, the legislative framework for implementation of an IFMIS is enshrined in the act for extensive powers on ministry of finance and economic cooperation (MOFEC) to determine the financial management framework over all organs of the nation, in all spheres of government. The Ministry of finance and economic cooperation (MOFEC) must, through national legislation, establish a national treasury and prescribe measures to ensure transparency and expenditure control in each sphere of government by introducing generally recognized accounting practices, uniform expenditure classifications, and uniform treasury norms and standards. It intends to modernize the system of financial management in the public sector, to enable public sector managers to manage, but at the same time be held more accountable, to ensure the timely provision of quality information and to eliminate waste and corruption in the use of public assets. The Act is part of a broader strategy on improving financial management in the public sector through various reform projects and strategies, such as budget and procurement reforms introduced by the Ethiopian government through MOFEC and Government procurement & property disposal services (GPPDS).

A government is a huge and complex organization, whose operations and strategic focus could be greatly enhanced by the well-focused application of Information and Communication Technologies (ICT) to support improvements in productivity, management effectiveness and ultimately, the quality of services offered to citizens. Government Information aims to improve the Government's return on investment in ICT by enhancing strategic planning, agency capability, management and evaluation of ICT-enabled projects. Governments assist agencies to better align their ICT investment with their business and policy objectives and whole-of-government strategies. While the benefits of ICT in government cannot be disputed, there are several concerns about its success as well as the strategies to be adopted in implementation of systems in various countries.

Common ICT policies include creating a regulator and licensing scheme, investment or assistance in the construction of infrastructure, introducing ICT programs into universities and creating initiatives to promote universal access to these new technologies. Through policy, governments have the opportunity and the power to significantly alter how an ICT industry develops, and how successful it is. Good policy can overcome inequalities in development, build better infrastructure, and shape how companies approach their market and build their customer base. While many governments in the developing world struggle with the implementation and enforcement of policies and do not focus much attention on their ICT industry, there is significant potential in using policy to improve ICT industries. Business process re-engineering is a critical aspect of any IFMIS reform and requires a review of all systems, functional processes, methods, rules and regulations, legislation, departmenting arrangements and related processes. It will be necessary to establish new, standardized procedures throughout the government to formalize job descriptions and to improve arrangements and systems for internal and external control.

2.5.4. Implementations strategy

Many authors' states in a study on Project management: a systems approach to planning, scheduling, and controlling funds that goes beyond managing the technical aspects of implementation. An adequate project implementation team should be set up, ideally comprising a project manager, a public finance economist, a qualified accountant, a change management/training expert, IT-system experts and logistic experts. It is recommended to set up a steering committee to oversee the process at the highest level, chaired by a high-level figure, such as the Minister of Finance, that meets regularly and produces minutes on issues and milestones (Indeje&Zheng, 2010).

In his book Baker, D. L. (2009), E-government: From vision to implementation-A practical guide with case studies Sequencing the Implementation Process: There are high risks involved in implementing too many components of the reform at once and practitioners believe that risks can be mitigated with a phased approach that rolls out across government institutions in a gradual and flexible process (Ochara, 2010). Large IT-projects require substantial investments in equipment, training and infrastructure, and involve high risks of

delays and failure, because of interdependency of the various project components. It is recommended to favor a pragmatic step-by-step approach to reform, based on a detailed assessment of existing conditions and needs. The process should therefore start by a comprehensive assessment of the current institutional conditions (what is needed and can be reasonably achieved?), including an analysis of the current governance system, ICT-infrastructure, incentives structure, legal framework in place, and human resources available. The analysis should also cover the training needs and potential implementation challenges. The system should only be rolled out once it has been pre-tested with real data, to assess the way the chart of accounts, the software and integration processes, recording of real transaction and producing report work in practice. The roll-out strategies should ensure that: reform is built around clear benchmarks and milestones; reform is divided into self-contained modules and IFMIS implementation is broken down into definite steps.

Strategic planning is a process that results in decisions and actions to guide what your program is, what it does, and why it does it. Strategic planning is a practical process to help you adapt products, services, and activities to the needs of the population your program serves. Well-defined strategic goals and strategic objectives provide a basis from which to develop suitable programs and projects, as well as appropriate indicators. A strategic goal is a general summary of the desired state that an intervention is working to achieve.

The form of approach taken in implementation of can either be traditional where donors decide how it was done or participatory where a stakeholder was involved. The framework used can either be theory based evaluation or a logical framework which will guide on how the plan was realized (Ongaki, 2013) Methods of data collection can entail use of quantitative techniques such as questionnaires and registers or qualitative techniques such as use of focus group discussions. The benefits of strategic planning include improved program performance, use of resources, and understanding of program context, decision making, stakeholder communication, and political support for your program.

2.5.5. Staff-Resistance

IFMIS is largely a new concept or system granted that it is yet to take sufficient roots especially in the county governments. Needless to say, therefore, this system is bound to face considerable resistance from the staff expected to implement it. To overcome this resistance there needs to be effective change management. Barcan (2010) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. The objective of change management besides overcoming employees' resistance is to maximize the institution's capacity to achieve success through involved, educated and committed personnel. Some authors posits that change management includes stakeholder's management model, a communication strategy, a change-readiness assessment framework and certain design elements.

Indeje and Zheng (2010) contend that the introduction of a new information system such as IFMIS fundamentally changes the way operations are carried out and, therefore, requires a carefully managed process in order to avert probable staff resistance. This process results in the creation of a new organizational culture, that is, change in the way the organization operates. An IFMIS generally implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of processes, procedures, user profiles and requirements that the system will support (Chêne 2009). The changes associated with the introduction of IFMIS should be communicated to the staff in order for the same to embrace it

The management of the changes that accompany an IFMIS implementation is viewed as one of the most crucial, yet, one of the most neglected aspects of IFMIS reforms. The success of any reforms boils down to the capacity of an institution to change, to manage the change and to survive whilst changing. He further warns that resistance to change may emanate from various organizational stakeholders. These may include amongst others, persons with vested interests such as members of staff who benefited from previous methods, civil servants who perceive the change as an imminent threat to their jobs and also individuals who resist change simply because they dread the unknown. According to some researchers believe, an IFMIS project director must have among others capacity to entrench organizational change management especially to overcome any resistance.

Change management strategies should be developed immediately an IFMIS project is conceived. Consideration for change implications for different stakeholders; be they politicians, senior officials, heads of departments, IT personnel, civil servants, amongst others who are expected to support the new system ought to be taken (Rozner, 2008). It is warned that failure to address this issue early in the project and possibly prior to the project commencement, then the IFMIS is bound to face resistance and derailments from executive officials, elected political leaders and personnel who are anticipated to use the system regularly.

Rozner (2008) and Rodin-Brown (2008), assert that the most convenient method of overcoming change resistance is by ensuring that there is clear communication, education and training and also via 'quick wins' that demonstrate the benefits of the change. Communication can be executed through a variety of media, seminars, workshops, training sessions, organization's website, conferences and/or newsletters. Through the IFMIS implementation process as outlined in the Ethiopia's IFMIS Implementation Strategic Plan 2011 – 2015, the Ethiopian government hopes to address the change management and communication challenges previously experienced in the pilot phase of IFMIS implementation, which greatly contributed to lackluster performance of the system. The strategic plan identifies the political, administrative and capacity constraints that require rigorous interventions with the object of securing the buy-in and ownership attributes necessary within Government Ministries, Departments and Agencies (MDAs) to facilitate effective IFMIS implementation and improve the confidence of all relevant stakeholders.

IFMIS implementation strategies for successful transition with the reality of the work ethos and culture within the Ministry of Finance and the entire public service. it is argued that change arising from IFMIS implementation calls for an absolute paradigm shift in the mindset of all IFMIS users as well as top-down and bottom-up approach to generate the support and commitment needed to successfully implement all aspects of the IFMIS re-engineering process. As outlined in the Strategic Plan, CMS was to focus on awareness creation, increasing broad-based commitment, managing expectations, change coordination staff development and aversion of resistance to the implementation of the system. Indeed,

staff facilitation and motivation have been identified as some of the key success factors of the IFMIS implementation plan. Thus there is the use of IFMIS in the ministries in Ethiopia is affected largely by sabotage and resistance.

2.5.6. Top Management Commitment

Diamond and Khemani (2005) in their IMF working paper on Introducing Financial Management Information Systems in Developing Countries, sought to investigate the reasons for the almost universal failure to implement and sustain IFMIS in developing countries. They found that senior managers in DCs rarely delegate responsibility and lack experience in computerized accounting, and are therefore unable to grasp its possibilities for financial management. In this environment, there is likelihood that systems will not be user friendly, will not match the needs of the managers and will not have the required level of management ownership. They recommended that IFMIS implementation should have a solid backing at the political level which will then trickle down to management level, citing this as the reason Tanzania's IFMIS implementation was the most successful in all Anglophone countries.

Kimwele (2011) analyzed the Factors Affecting Effective Implementation of IFMIS in Government Ministries in Kenya. The study aimed at determining the effectiveness of IFMIS implementation in the Kenyan government ministries and the factors that influenced the successful implementation of IFMIS. The study concluded that the laxity of top management to support the use of the IFMIS system had affected its effective use by government employees. They failed to inspire and had little understanding of the use of IFMIS, further the study recommended that this problem could be addressed by providing more training to top management and other users of the system.

Mwakio (2015) investigated the Challenges Facing County Governments in the Implementation of IFMIS in TaitaTaveta County. The study aimed at finding out why there was still poor management of devolved funds to the counties despite the use of IFMIS at the counties. The study concluded that previous training on IFMIS had not involved senior county officers who were often too busy attending to other matters and thereby sending their junior staff for the training instead. The study recommended that the national treasury deal

more decisively on matters devolution and specifically in the implementation of IFMIS to avoid letting partisan politics interfere with management of devolved funds.

CHAPTER THREE

RESEARCH METHODOLOGY

The aim of this section is to highlight the overall methodological considerations of the thesis which was used in the problem study. The methodology section is divided into five sub-sections. The first section outlines the general research approach which the paper was relies on, and the second encompass a discussion of the actual research design which was applied throughout the thesis. The following third section elaborates on the sampling method used and the justification for it and the sample size determined for the research. Finally, section four and five respectively constitute the method of data collection and the description of the data analysis method used.

3.1 RESEARCH APPROACH

The study was descriptive in nature as it is deemed appropriate because it involve use of written questionnaires administered to respondents. And reason using descriptive study design is because the researcher is interested in describing the existing situation understudy. Baker (2009) recommends descriptive design as it allows the researcher to describe, record, analyze and report conditions that exit or existed. Since this study sought to describe the factors that affectthe implementation of Integrated Financial Management Information Systems in the public sector of Ethiopia, descriptive research design is the best design. This had the advantage of providing an in-depth investigation of the problem under study. The study also used both qualitative and quantitative data. Qualitative data was applicable since meanings were based on expressions through words and analysis were conducted through the use of content analysis. Quantitative data was applicable since meanings were derived from numbers and analysis was conducted through the use of diagrams and statistics.

The Data obtained in the study was mainly based on primary research data. This is a result of no prior research conducted on the factors affecting the implementation of IFMIS in Ethiopian Public Sector since it is a new financial system as mentioned in the problem identification. Hence, in order to solve the research problem at hand, the researcher was rely

on primary data sources mainly the use of questionnaires, interview and observation. However, supporting arguments or patterns found in annual reports, some journals made in east Africa countries public sectors and brochures were involved to use secondary data where necessary.

3.2 RESEARCH DESIGN

Since, the research design is the master plan/blueprint specifying the methods, procedures for collecting & analyzing the needed information or the detailed outline of how an investigation will take place, in this research design section the researcher answered: How data was collected, what instruments employed, how the instruments used and the intended means for analyzing data collected below.

Therefore in this study the researcher used Descriptive research design since it can be done quickly and easily to answer the problem statement and pertaining research objectives. The reason behind in using this research design is because it used for description of the state of affairs as it exists at present. And in answering the research objectives, the researcher proposed an integrated conceptual framework for the factors affecting the implementation of IFMIS in Ethiopian Public Sector. The conceptual framework used to analyze between the effective IFMIS implementation and its determinant factors in public sector of Ethiopia. In this paper the variables and respective attributes of the model was attitudinal and measured & expressed using a five point Likert scale, a scale measuring the degree to which respondents agree or disagree with a statement in the following manner: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. Five different scores assigned: 1, 2, 3, 4, 5, to represent this five-point scale respectively. "The Likert scale method was preferred to make questions interesting to respondents and thereby enhance their cooperation, ultimately to ensure maximum response rate" (Robson Colin, 2002). Hence the factors affecting the implementation of IFMIS in Public sector of Ethiopia must have received perceptions equal to or more than expectations in the researcher. So the hypothesized test value in this study was split users of IFMIS into Agreed and Disagreed users.

3.3 SAMPLING METHOD AND SAMPLE SIZE

According to Diamantopoulos (2004), a population is a group of items that a sample will draw. A sample, on the other hand, refers to a set of individuals selected from an identified population with the intent of generalizing the findings to the entire population. A sample is drawn as a result of constraints that make it difficult to cover the entire research population (Leedy et al., 2005).

In this research, since the targeted population is large the researcher used simple random sampling design to determine the sample size and to answer the problem statement and pertaining research objectives. The reason behind using simple random sampling is because in simple random sampling all individuals will have an equal chance of being selected. Before the sample size is determined, the researcher used purposive sampling design to selecting MOFEC directorates which use IFMIS System to defining the population and developing a sampling frame. Therefore, Finance and Procurement directorate, Planning directorate, Property Admin directorate, Top Management offices, Self Service and Information technology directorate to get System Administrator and Setup Users, is selected from all directorates of MOFEC who use the system and participate in the implementation of IFMIS to limit the scope of the study and Ministry of Finance and Economic cooperation is purposely selected from other public sector since it is the 1st responsible and owner of IFMIS rollout through public sectors and the first pilot site selected by government to implement IFMIS . Because MOFEC face and know all the factors affecting the implementation of IFMIS in Ethiopian public sector more than other public sector due to its role and responsibility for the Implementation of IFMIS.

To conduct the research on public body (MOFEC) about the factors affecting the implementation of IFMIS on them the researcher selected as a respondent using simple random sampling from their total population (from users of IFMIS) since all users in all MOFEC departments are large and unmanageable. The respondents selected from purposely selected MOFEC directorates was those who participate in IFMIS implementation in their public body and use the system. Therefore, simple random sampling technique used in the study. Since population of each directorates is too large (from IFMIS user administration data there are 113 IFMIS users), it is impossible to include every individual because of their

convenient accessibility and proximity to the researcher. However, since the objective of study focus on the factors affecting the implementation of IFMIS in Ethiopian public sector, the sample frame of the targeted population was only the IFMIS users of each directorates which is 113.

After the samples of each directorates who use the system have been determined, the researcher used the following sample size determination formula to determine the sample size of the population in MOFEC. The formula was developed by Taro Yamane (1967). It is calculated as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where **n** is the sample size,

N is the population size, and

eis the level of precision or sampling error = (0.05)

$$\mathbf{n = \frac{113}{1 + 113(e)^2} = 88.10916}$$

Hence, the total sample size is 88. Since the number of people in each department is not the same, the number of samples for each department was calculated by the following formula:

$$n1 = \frac{nN1}{N}$$

Where n= total number of samples

N= total number of population

N1= total number of population in each department

n1= number of samples in each department

No_	Departments	Number of Responsibility	Number of Users	Sample Size
1	Financial Users	26	24	19
2	Planning Users	25	21	16
3	Property Admin Users	6	13	10
4	Procurment Users	2	9	7
5	Top Management Users	8	11	9
6	Self Service Users	2	22	17
7	System Administrator Users	19	7	5
8	Setup Users	15	6	5
Total		**103**	**113**	**88**

Source: *MOFEC IFMIS User Adm.July,2017 & Taro Yamane (1967) Formula*

The study was conducted on MOFEC seven directorates (Financial & Procurement, Planning, Property Administrations, Human Resource directorates, Top Management offices, Self Service Users, and Information technology directorates (System Administrator & Setup) and the total population of the study was 113.

3.4 DATA COLLECTION METHOD

Data analyses was depend on both the objectives of the study and the nature of the variables in the data collected. In this study descriptive statistics involved in summarizing, describing and analyzing quantitative information in meaningful ways. To describe the factors affecting the implementation of IFMIS in Ethiopian public sectors, a very detailed, critical examination or survey was conducted; using semi-structured interview and questionnaires since IFMIS implementation is costly and major government intention to do roll out through all public sectors to have one and integrated system. And the researcher used descriptive survey study since it is also not time taking to collect data from large Populations.

After permission granted, a total of 30 questionnaires distributed to a sample of 88 respondents who uses IFMIS in their respective directorates. And the survey pack included a copy of the cover letter, and the questionnaire. The purpose of this thesis was to find information to answer what and which objectives. The study focused on collecting, analyzing

and describing data to get the opportunity so as to find the critical factors that affect theimplementation of IFMIS in Ethiopian Public Sector.

3.5. DATA ANALYSIS AND PRESENTATION

The data received from the respondents analyzed with the help of statistical software program: statistical package for social sciences (SPSS).The descriptive statistical results presented by tables, frequency distributions and percentages to give a condensed picture of the data. This was achieved through summary statistics, which includes the means, standard deviations values which are computed for each variable in this study. Finally, the results of both descriptive statics results were presented by appropriate figures and tables.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATIONS

4.1. INTRODUCTION

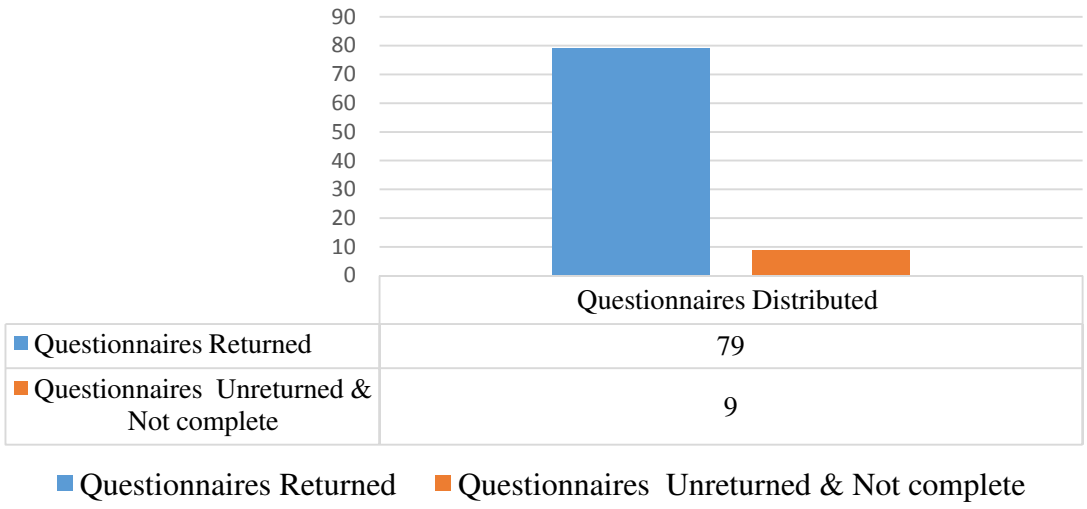
As indicated in the preceding chapters, this research study attempted to examine the factors affecting the implementation of IFMIS in Ethiopian Public Sector in special focus on Ministry of Finance and Economic Cooperation (MOFEC). This chapter presents the main issues of the actual findings which are based on the primary Data collected using questionnaire results & interview and secondary data collected from various sources such as MOFEC IBEX/IFMIS project office reports, Top management reports, and many others administrative records. The data collected was analyzed using descriptive statistical methods for each variable and the findings are presented in tabular summaries, and their implications discussed.

To analyze the raw data collected from the sample Program Implementers at MOFEC Directorate IFMIS users from Financial, Planning, Property Administration, Procurement, Top Management, Self Service, System Administrator and Setup team, the researcher used SPSS 17.0 version which is specialized statistics program that can perform highly complex data manipulation and provide sufficient tools for analyzing the collected data with simple instructions. Therefore, the primary data from the questionnaires and secondary data from review of different documents was analyzed using simple descriptive statistics (mean, standard deviation). This enabled the researcher to make the analysis and to see the factors affecting the implementation of IFMISin Ethiopian Public Sector.

A total of 30 questionnaires were distributed to 88 respondents out of 113 IFMIS users purposely sampled from MOFEC directorates since all MOFEC employee is not necessarily useful to conduct this study, and 84 questionnaires returned, representing 95.45 percent response rate since out of 100% sampled respondents 4.55% of them not return the questionnaires to the researcher. From the 84 questionnaires returned, 5 questionnaires are not included in the analysis just because the responses received were incomplete and not relevant for the analysis purpose. And based on the nature of the question, the researcher

grouped the questionnaires in six group which is questioners related to government policy, implementation strategy, capacity & skill of users, availability of ICT infrastructure, top management commitment and IFMIS user resistance to make data analysis easy and manageable.Therefore, the analysis was conducted based on the responses of these 79 respondents' response with supplements of secondary data to interpret and elaborate more to explore the determinants of IFMIS Implementations.

Figure 4.0: Total Number of questionnaires distributed, returned and unreturned



Source: Survey data

In addition, the researcher was conducted an interview with only 5 Directors for the reason that it was not well-situated to interview all Directors of MOFEC directorates; and reviews some journals and some MOFEC IBEX/IFMIS project office report documents regarding IFMIS implementation.

In this section of data analysis and interpretation, the first part presents and discuses descriptive statics results related with the personal profile and the independent variables of the study and then followed by analysis of variance to examine in the variation on the factors affecting the implementations of IFMIS in relation to the six variables of the study. Therefore prior to running SPSS to explore the research questions, descriptive statistics analysis and interpretation of the sample IFMIS users' responses the researcher try to show

the count and percentages of the responding employee in relation to their personal profile data. And as the analysis of questionaries' followed the above grouping of questionaries' which is based on the nature of the question, the questionnaires in six group which is questioners related to government policy, implementation strategy, capacity & skill of users, availability of ICT infrastructure, top management commitment and IFMIS user resistance.

4.2. DEMOGRAPHIC INFORMATION

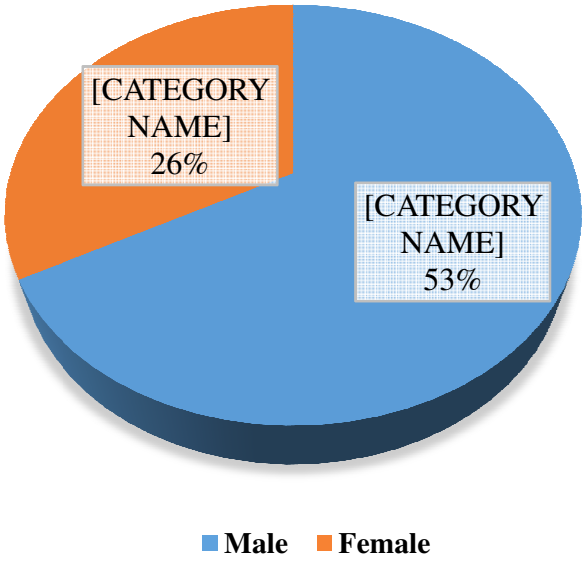
Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population and testing appropriateness of the respondent in answering the questions for generalization purposes. As discussed above sections the sample respondents of this research from Directorates of MOFEC which used IFMIS such as Finance and Procurement directorate: IBEX/IFMIS project office, some directorate self-service Users, internal auditors, Treasury directorate, national account directorate, budget directorate, and general service directorate (Inventory and Fixed Asset administration users) get the research questions and filled their personal profile as required.

And this description of the characteristics of the target population gives some basic information about the sample population involved in the study. From the data collected and tabulated, the following significant characteristics of respondents have been obtained. Therefore below the researcher comprised the demographic information of respondent's gender, age, level of education and work experience.

4.2.1. Gender of the Respondents'

The study sought to determine the gender composition of the respondents. The information is as illustrated in **Figure 1:**

Figure 4.1: Gender of the Respondants



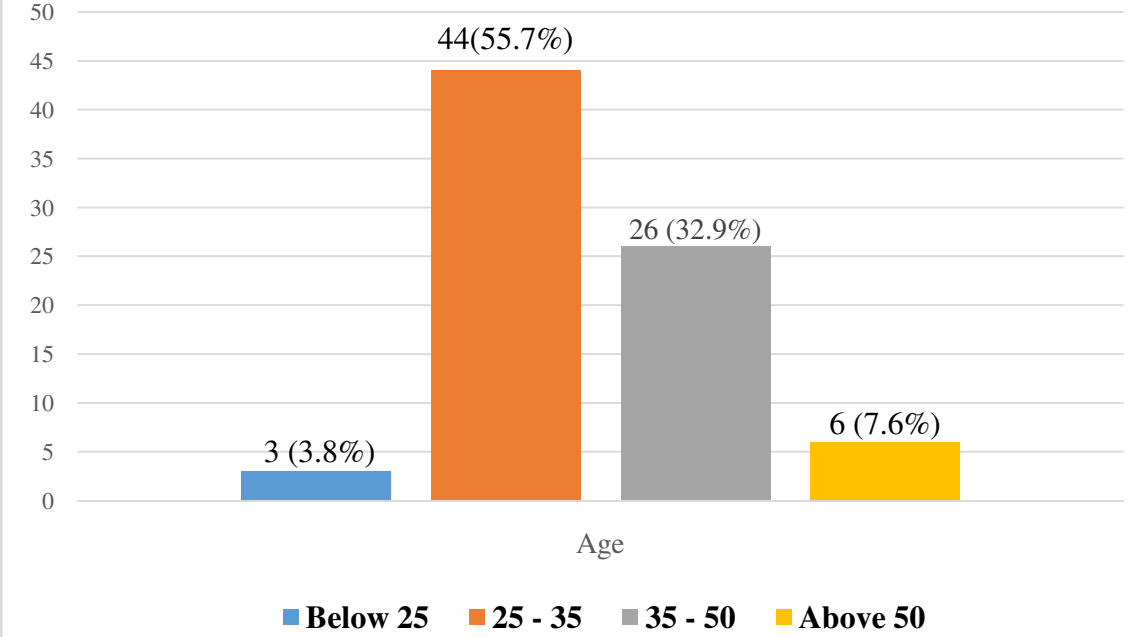
Source: Survey data

From the findings, it was established that majority of the respondents as shown by 53% were male whereas 26% of the respondent were female, this is an indication that both genders were well represented in this study and thus the finding of the study did not suffer from gender bias all through the study. This implies there were more male than female respondents though with less disparity meaning that there is gender balance among the employees involved in the implementation of the projects. Carter and Shaw (2007) found that organizations with gender balance were motivated to perform better towards organization goal as women and men compete favorably to deliver on their assignments.

4.2.2. Age Distribution of the Respondents

The study requested the respondents to indicate their age category. The results were as shown in **Figure 4.2**.

Figure 4.2. Respondent Age Distribution



Source: Survey data

From the research findings, the study revealed that most of the respondents as shown by 3% were aged below 25 years, 55.7% of the respondents were aged between 25 to 35 years, 32.9% were aged between 35 to 50 years, and 7.6% were above 50 years. This implies that respondents were well distributed in terms of their age during the study. This also implies that majority of the respondents were at their maturity stage and therefore able to handle their roles responsibly. The findings support the move by the organizations giving emphasis on maturity and experience during the implementation of various projects.

4.2.3. Educational Level of Respondents

The study sought to establish the educational background of the respondents and the findings were as shown in Table 4.1.

Table 4.1: Respondents Educational Level

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Diploma	8	10.1	10.1	10.1
	Degree	48	60.8	60.8	70.9
	Above Degree	23	29.1	29.1	100.0
	Total	79	100.0	100.0	

Source: Survey data

From the study findings, most of the respondents as shown by 10.1% indicated that they held diploma certificates, 60.8% of the respondents had degree certificates and 29.1% indicated to have reached above degree level. This implies that most of respondents were well educated and that they were in a position to respond to research questions with ease. Hazernberg (2012) associated the education level of project managers with findings that, those with higher levels of education are more successful because higher education provides them knowledge and modern managerial skills, making them more conscious of the reality of the organization management world and thus in a position to use their learning capabilities to enhance project implementation and delivery. The findings therefore indicate that the respondents have the capacity, skills and management acumen to facilitate performance of IFMIS in the organization. These skills may help them handle and interpret their respective services and the emerging issues on implementation and effectiveness of the IFMIS to the best level possible.

4.2.4. Experience in their Organization and in using IFMIS

The study sought to establish the working experience of the respondents & their experience in using IFMIS and the findings were as shown in **Table 4.2** and **Figure 3:**

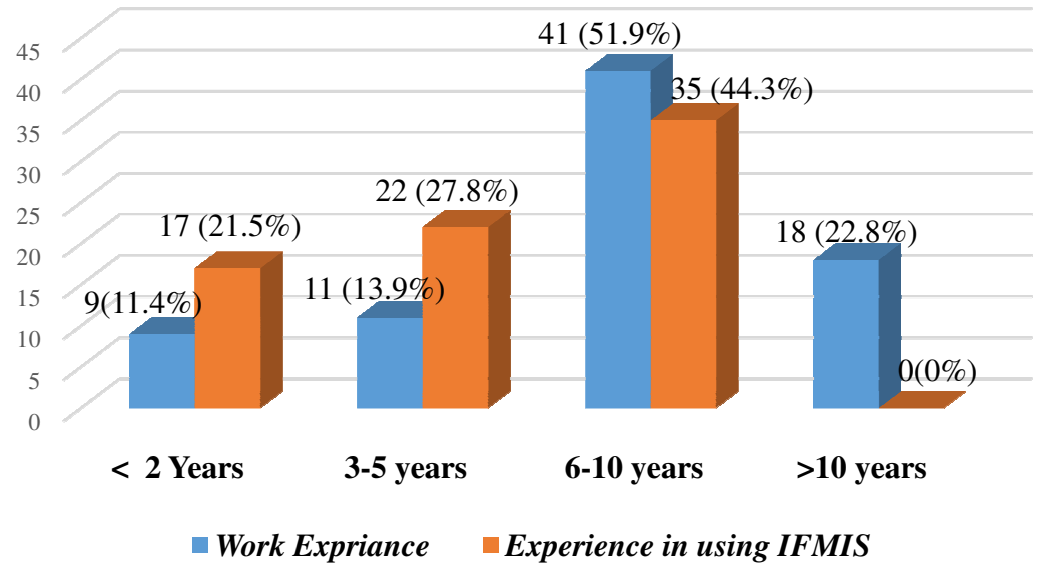
Table 4.2: Respondent Service Year and Experience in using IFMIS

		Frequency	Percent	Valid Percent	Cumulative Percent	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	0	0	0	0	5	6.3	6.3	6.3
	< 2 Years	9	11.4	11.4	11.4	17	21.5	21.5	27.8
	3-5 years	11	13.9	13.9	25.3	22	27.8	27.8	55.7
	6-10 years	41	51.9	51.9	77.2	35	44.3	44.3	100

>10 years	18	22.8	22.8	100	0	0	0	100
Total	79	100	100		79	100	100	

Source: Survey data

Figure 4.3: Respondent Service Year and Experience in using IFMIS



Source: Survey data

As indicated in the above table with respect to the level of experience , 11.4% of the respondents have below 2 years of experience , 13.9 % of the respondent were experienced 3 to 5 years and 51.9 % 6 to 10 years and 22.8 % experienced greater than 10 years . However, all the respondents have no experience in using IFMIS. Only 93.67% of the respondent have an experience of using IFMIS. Which is 21.5% of the respondents have below 2 years of experience , 27.8 % of the respondent were experienced 3 to 5 years and 44.3 % of the respondent were experienced 6 to 10. Whereas from the total sample only 6.33% have no experience in using IFMIS. But the researcher include them in the sample population since they are at management position who participated in IFMIS implementation decisions. This indicate that more than 93.67 % of the respondents have long years of experience in using IFMIS and participating in its implementations and they have capacity to perform their duty in well experienced way. Because Work experience is an important part of becoming 'workplace-ready and to differentiate the determinant factors of their work more

than third party. A survey conducted by Scribner in 1998 found that that building useful skills that cannot be taught in the classroom as well as contacts that students otherwise would not be exposed to and prospective employer will always looks favorably on the effort taken by those who have done work experience, which empowers new talent and gives them an edge to push for the most sought after graduate positions in the field." Therefore the sampled respondents of this research experienced in technological skills, found their work-based experiences to not only be rich in opportunities to practice, but also increased skills in problem-solving, critical thinking, and teamwork skills. That is why the researcher focus on those who use IFMIS to get relevant data for this research.

4.3. DESCRIPTIVE STAT. RESULTS & DISCUSSIONS FOR QUESTIONARIES'

This section presents the results of the descriptive statistical analyses of the data and their interpretations. The descriptive statistics used are the means C.R Kothari (2004) which is the simplest measurement of central tendency and is a widely used measure the C .R Kothari (2004) *Standard deviation* is most widely used measure of dispersion of a series. Standard deviation is defined as the square-root of the average of squares of deviations, when such deviations for the values of individual items in a series are obtained from the arithmetic average. The main purpose of using this statistical parameter is to interpret the average response rate of respondents for each factors. The respondents were to give their independent opinion on the factors affecting theimplementations of IFMIS in their organizations.

According to Kajuju (2012), the scores of strongly agree /agree have been taken to present a variable which had a mean score of 3.5 to 5 on the continuous Likert scale; ($3.5 \leq S.E < 5$). The scores of 'neutral' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale; ($2.5 \leq M.E < 3.4$).The score of disagree/strongly disagree have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; ($0 \leq L.E < 2.5$). A standard deviation of >0.8 implies a significant difference on the impact of the variable among respondents. In this research, the researcher used his judgment based on the above range of scoring of Kajuju (2012 "Any score can be assigned as long as the intensity of the response pattern is reflected in the score and the highest score is assigned to the response with the highest intensity." (Renjit_Kumar, Research

Methodology, pp. 161). So as to make the data analysis of questionnaires easy and manageable, the researcher group the questionaries' standing from the interviewee responses for some questions based on their nature and focus area. Therefore the data analysis for each grouped questionnaires described as follows:

4.3.1. Descriptive Statistics for questionnaires related Government Policy

The first five questionaries' which considered in this study as the success factor or faller for the implementation of IFMIS is related to the Government policy. The study sought to establish the extent to which respondents agreed or disagreement with the five questions below in the table 4.3.1 that relating to Government Policy to describe the influence of it on the implementation of IFMIS in Ethiopia public sector. The 79 respondent's response presented and analyzed in **Table 4.3.1.**below.

Table 4.3.1: Descriptive Statistics of questionaries' response related to Government Policy

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	There is no implementation of policy in the country in regard to use of IFMIS in the organization.	79	1	5	3.96	1.079
2	The government is not ensure that there is compliance/conformity on the usage of IFMIS in the organization.	79	1	5	3.52	1.270
3	The government policy as well as the structure of the organization is not comfortable for the implementation process.	79	2	5	3.72	1.049
4	MoFEC does not play a great role for IFMIS implementation using Government finance legislation framework.	79	1	5	3.91	0.923
5	Government financial rule and regulations is negatively affect implementation of IFMIS in the organization.	79	1	5	3.68	1.138
	Valid N (list wise)	79				

Source: Survey data

From the **table 4.3.1** above, majority of the respondents indicated that to a strongly agree and agree with a mean of above 3.52 on the five statements listed in the **table 4.3.1** which is, the government of Ethiopia have no implementation of policy in regard to use of IFMIS in in public sectors as shown by a mean of 3.96; the government is not ensure that there is compliance/conformity on the usage of IFMIS in the organization.as shown by a mean of 3.52; the government policy as well as the structure of the organization is not comfortable for the implementation process as shown by a mean of 3.72; MoFEC does not play a great role for IFMIS implementation using Government finance legislation framework as shown by a mean of 3.91; and Government financial rule and regulations is not negatively affect implementation of IFMIS in the organization as shown by a mean of 3.68. Therefore, descriptive statics results implies that government policy of the country government is the determinant factor of implementation of IFMIS in public sectors. Because according to the respondents response there is no implementation of policy in the country in regard to use of IFMIS in the organization. So without any implementation policy guide line it is impossible for MOFEC to a great role for IFMIS implementation using Government finance legislation framework and also the government can't ensure conformity on the usage of IFMIS in the organization. In the absence of clear legal guidance on the roles and responsibilities of all institutions, it is impossible to define and agree the roles and responsibilities of each individual involved in the implementation at the outset.In addition to this the respondents agreed that the government policy as well as the structure of the organization is not comfortable for the implementation process. Due to this the government financial rule and regulations is negatively affect implementation of IFMIS in the organization that is why the respondents agree with this statement as shown by a mean of 3.68. However from the interviewee replay they disagree on this response instead they are in question using it to guide the implementation.

It is important to have clear legal guidance on the roles and responsibilities of all institutions involved in the implementation of an IFMIS. According to Dzidonu(2011), a government policy which is a legislative framework consists of the constitution, finance act and regulations, and needs to include: the roles and responsibilities, of the treasury, and other departments responsible for the control and management of public finance, the main form of

government funds, receipt and custody of public funds, the annual process, submission and approval of estimates and the procedures for release of funds, the basis of accounting and the form of annual accounts for audit and presentation enhance implementations of IFMIS.

4.3.2. Descriptive Statistics for questionnaires related Implementation strategy

The findings as shown below in ***table 4.3.2*** illustrated that respondents agreed that IFMIS implementation strategy in your organization have good plan and schedule, change management team from IFMIS Project office and adequate & Skilled IFMIS implementation team to run IFMIS implementation with average mean = 3.69; StdDev = 1.143. The relatively larger standard deviations (stddev> 1.000 and mean >3.5) implied that there were some respondents who had agreement regarding the IFMIS implementation strategy in their organizations. However, according to some managements saying even if the implementation strategy of IFMIS is good still the project is still questionable to be successful. Which mean there is no good design, proper planning and project management, and the hard work of a dedicated team of professionals. Because they said that we can say good plan and schedule if the project implementation plan should cover immediate, medium-term and long-term IFMIS tasks and objectives, whilst a clear mission statement will help control the project direction, participant expectations and, ultimately, project costs. Because the time span involving the implementation of an IFMIS is so long, it is inevitable that governmental changes, which often lead to structural changes, will occur. The project management implementation plan should therefore be revisited regularly to ensure that the situation has not changed substantially.

Therefore, from the research findings, the researcher summarized that the majority of the respondents indicated their opinions with agreement of the statements that they had strategic plan for implementation of the IFMIS as shown by a mean of 3.71; the organization had proper systems approach of planning, scheduling of IFMIS to continuous assessed & managed the implementation as shown by a mean of 3.58; there was adequate project team involved in implementation of the IFMIS as shown by a mean of 3.59. The respondents also agreed that the implementation of IFMIS information is not kept secure when started in their

organization as shown by a mean of 3.73 and they had change management team from IFMIS Project office to create awareness about IFMIS as shown by mean of 3.84.

However according to the management report about the performance of IBEX/IFMIS project office, change management is not be described in the good way to the creation, maintaining and systematic evaluation of changes in an organization. Even if it aims at maximizing an organization's ability to achieve success through involved, educated and committed people, IFMIS implementation change management does not includes a stakeholder management model, a communication strategy, a change-readiness assessment framework and certain design elements.

The study results reveals that lack of proper systems approach of planning, scheduling and training program in the strategic plan may have contributed ineffectiveimplementation of IFMIS in the organization. The findings of the study are in tandem with findings of Njonde&Kimanzi (2014) who indicated that strategic planning in implementation strategy is a process that results in decisions and actions to guide what your program is, what it does, and why it does it which facilitate effective implementation of IFMIS in the public sector.

Table 4.3.2: Descriptive Statistics of questionaries' response related to IFMIS Implementation strategy

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	IFMIS implementation strategy in your organization have good plan and schedule.	79	1	5	3.71	1.262
2	The implementation of IFMIS Project continuous being assessed & managed.	79	1	5	3.58	1.194
3	The implementation of IFMIS information is not kept secure when started in your organization.	79	1	5	3.73	1.151
4	There is organized change management team from IFMIS Project office to create awareness about IFMIS.	79	1	5	3.84	1.055

5	The MOFEC have adequate & Skilled IFMIS implementation team to run IFMIS implementation.	79	1	5	3.59	1.056
	Valid N (list wise)	79				

Source: Survey data

4.3.3. Descriptive Statistics for questionnaires related Capacity and Skills of IFMIS Users

Here, the study also sought to establish the extent to which respondents agreed or disagreement with the statements relating to the capacity and skill of IFMIS users influence the implementation of IFMIS in public sector in Ethiopia and the researcher described with descriptive Statistics in the **table 4.3.3** below and analyzed as follows.

Table 4.3.3: Descriptive Statistics of questionaries' response related to Capacity and Skills of IFMIS Users

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	Your organizations has personnel with requisite knowledge & expertise for effective implementation, operation, & maintenance of IFMIS.	79	1	5	2.39	1.203
2	Every employee of the organization have adequate know how about IFMIS.	79	1	5	2.42	1.128
3	Your organization has taken necessary measures to develop requisite skills & capacity of the central IT department.	79	1	5	2.29	1.111
4	Your organization arranges & provide adequate IFMIS training for the staffs of the organizations.	79	1	5	2.52	1.119
5	Your organization has taken necessary measures to reinforce capacity in IFMIS project team	79	1	5	2.44	1.238
	Valid N (list wise)	79				

Source: Survey data

The findings as shown in the above ***Table 4.3.3:*** illustrated that respondents disagreed (mean = 2.39; stddev = 1.203) that MOFEC has inadequate personnel with requisite knowledge & expertise for effective implementation, operation, & maintenance of IFMIS. In addition to this the respondents were also disagreed (mean below ≈ 2.52; stddev> 1.00) regarding county government has taken necessary measures to develop requisite skills and capacity of the central IT department; arranges & provide adequate IFMIS training for the staffs of the organizations; taken necessary measures to reinforce capacity in IFMIS project team ; county government conducts capacity building to its personnel through training since every employee of the organization have no adequate know how about IFMIS according to the respondents agreement on the statement in the questionnaires. The relatively larger standard deviations (STD dev< 1.65) implied that there were some respondents who disagree regarding the adequacy of the capacity and skills of IFMIS users. The findings of the study are in agreement with literature review by Selfano&Serah (2014) who indicated that human resource capacity plays a significant role on the implementation of IFMIS in the organization. The effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. Sigei (2013) argues that low capacity for system implementation at the organizational level, is one of the major challenges in the implementation of an IFMIS in developing countries. Hove & Wynne(2010) contend that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within government.

In addition the standard deviation value 1.128 and 1.238, shows that every employee of the organization is no aware about IFMIS and organization has not taken necessary measures to reinforce capacity in IFMIS project team and staff of organization to update their know how about IFMIS.However the management that the researcher interviewed, disagree with the respondent of the questioner response, in contrary they are not agree with the statement. However, argue that the training will not only include training in the use of the IFMIS for the respective operations and functions, but will also entail training in the new legal and regulatory framework, the new codes and classifications, and the new business procedures

put in place. Because A well-defined training program will also assist in building capacity and help build confidence amongst users who, through the process, are reassured that there will be some constants amidst the change. According the management point of view given the nature of institutions and organizations, capacity building is a never-ending process. It needs to be ongoing and permanent.

4.3.4. Descriptive Statistics for questionnaires related top Management Commitment

The other sought of this study is to establish the extent to which respondents point of view relating to top management commitment influence the implementation of IFMIS in public sector in Ethiopia and the researcher again described their point of view with descriptive Statistics in the table 4.3.4 below and analyzed as follows.

Table 4.3.4: Descriptive Statistics of questionaries' response related to top management commitment

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	Top management takes action when the employee faces challenge during implementation.	79	1	5	2.34	1.175
2	Top management of the organization tries their best for the critical success factors to the implementation of IFMIS.	79	1	5	2.29	1.200
3	Top management in your organization has awareness about the benefits the benefits of IFMIS.	79	1	5	2.52	1.024
4	Top management of your organization assists & encourages employee in IFMIS adoption.	79	1	5	2.35	1.359
5	Top management in your organization allocates enough financial to IFMIS implementation.	79	1	5	2.39	1.234
6	The management of your organization strongly needs the implementation of IFMIS.	79	1	5	2.23	1.132
	Valid N (list wise)	79				

Source: Survey data

From the findings in the ***table 4.3.4*** above, it is clear that the respondents agreed that top management is not takes action when the employee faces challenge during implementation as

shown by a mean of 2.34; the organization management is not tries their best for the critical success factors to the implementation of IFMIS.as shown by a mean of 2.29; some management of the organization have no awareness about the benefits the benefits of IFMIS as shown by a mean of 2.52. In addition the respondents disagreed with that top management of their organization assists & encourages employee in IFMIS adoption and allocates enough financial to IFMIS implementation as shown by a mean of 2.35 & 2.39 respectively; and they did not agree whether the management of their organization strongly needs the implementation of IFMIS as shown by a mean of 2.23. This shows that realistic predictions of how much time project leaders will need to devote to the project should not made with the help of project office team.

According to the management that the researcherinterviewed, the commitment by politicians and top management is not that much good to ensure success of the implementation of an IFMIS in the country. At the first time they act as committed later they forget during implementation. Totally left if for the project office. As they said experience indicates that the best designed project will fail without firm commitment from all stakeholders involved, including politicians, as well as top management including themselves. Thus, they posit that ensuring project commitment at the highest levels of the political system and of management and continuous participation from the direct users of the system is necessary in all phases of the project.

Thus, descriptive statics results implies that top management of the organization (MOFEC) is not committed and one of the determinant factor of implementation of IFMIS in public sectors. So without any top management strong involvement and commitment IFMIS implementation is impossible whether other determinant factor happen or not. The findings of Dorotinsky and Matsuda (2001) indicate that no matter how technically well designed; an IFMIS will ultimately prove powerless if and when the management choose to take decisions with fiscal and budgetary implications irrespective of the quality of the apparent laxity of counties to allocate adequate resources, to roll out IFMIS to other public sectors or to include IFMIS in the strategic plans could be attributed to reasons cited by Durevall and Erlandsson (2005), who argue that when IFMIS is working effectively, it removes the discretionary

power from the controlling officers to allocate resources and overspend, and makes it easy to detect corruption. Hence, since such a system runs against the interest of some managements, it will not receive much support.

4.3.5. Descriptive Statistics for questionnaires related Staff Resistance

The study also analyzed the views of respondents on how the resistance of the public sectors staff affects the implementation of IFMIS in the County. ***Table 4.3.5***below**:** outlines the relevant findings. It was established that respondents disagreed (mean ≈ 2.43, STD dev> 1.000) with the propositions that county government has capacity to make changes, manage changes and survive while resistance; some staff of the organization is happy for the implementation of IFMIS in their organization since according to respondents response implementation of IFMIS result in any job losses for some employee due to reshuffling staff as shown mean 2.43. And also respondents agreed with that some employee is not resists the implementation of IFMIS without any reason as shown a mean 2.16 , but disagreed that their organization has devised (think) convenient methods of overcoming change resistance shown a mean 2.42.

Table 4.3.5: Descriptive Statistics of questionaries' response related to Staff Resistance

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	Your Organization has capacity to make changes, manage changes and survive while resistance	79	1	5	2.37	1.263
2	Every employee of the organization is happy for the implementation of IFMIS in their organization.	79	1	5	2.38	1.113
3	Some employee resists the implementation of IFMIS without any reason.	79	1	4	2.16	0.940
4	Your organization has devised (think) convenient methods of overcoming change resistance	79	1	5	2.42	1.069
5	The implementation of IFMIS result in any job losses for some employee.	79	1	5	2.43	1.129

Table 4.3.5: Descriptive Statistics of questionaries' response related to Staff Resistance

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1	Your Organization has capacity to make changes, manage changes and survive while resistance	79	1	5	2.37	1.263
2	Every employee of the organization is happy for the implementation of IFMIS in their organization.	79	1	5	2.38	1.113
3	Some employee resists the implementation of IFMIS without any reason.	79	1	4	2.16	0.940
4	Your organization has devised (think) convenient methods of overcoming change resistance	79	1	5	2.42	1.069
5	The implementation of IFMIS result in any job losses for some employee.	79	1	5	2.43	1.129
	Valid N (list wise)	79				

Source: Survey data

4.3.6. Descriptive Statistics for questionnaires related ICT infrastructure

The last independent variable considered in this study as the determinant for the implementation of IFMIS is the availability of ICT infrastructure. Therefore study finally sought to establish the extent to which respondents agreed or disagreement with the four questions relating to availability of ICT infrastructure to describe the influence of it on the implementation of IFMIS in Ethiopia public sector. The 79 respondent's response presented and analyzed in ***Table 4.3.6.***below.

Table 4.3.6: Descriptive Statistics of questionaries' response related to availability of ICT infrastructure

	List of Questions	N	Minimum	Maximum	Mean	Std. Deviation
1	There is power inconsistency in the government organization which affects the implementation process.	79	1	5	3.61	1.285

2	The network dependency nature of IMFIS is the major implementation challenge.	79	1	5	4.28	.960
3	In adequate ICT related equipment in your organization hinder the implementation of IFMIS.	79	1	5	3.67	1.118
4	There is no reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization.	79	1	5	3.62	1.180
	Valid N (list wise)	79				

Source: Survey data

As outlined in Table 4.3.6, the respondents strongly admitted (mean ≈ 3.61) to the argument that There is power inconsistency in the government organization which affects the implementation process. Moreover, it was agreed (mean ≈ 4.28 & 3.62) that the network dependency nature of IMFIS is the major implementation challenge and the absence of reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization is the other challenges to ensure IFMIS implementation. And in adequate ICT related equipment in their organization hinder the implementation of IFMIS as shown a mean of 3.67. This reveals that there is lack of adequate ICT infrastructure availability such as computers, accessibility and software's to enable the users perform their roles well thus affecting implementations of IFMIS in the organization. To accomplish this revitalization, governments should trying to ensure well laid ICT infrastructure to support IFMIS in public sectors.

4.4. Interview Analysis

To gather more information about factors affecting the implementation of IFMIS in Ethiopian Public Sector, interview questions were forwarded to top management and directors of MOFEC. Accordingly the interviewee's responses to the questions are depicted briefly as follows. However, most interview responses are presented and analyzed in the questionnaire analysis part as a supportive response.

1. ***What your Directorate do before starting IFMIS implementation? Is there any rollout assessment team come from MOFEC?***

Each director prepare their financial and non-financial report for data migration and staff training by IBEX/IFMIS project office. In addition some of the director reshuffling employee and IT infrastructure as much as possible. However their all activities only focus to fulfill the interest of the project office. Their participation only on giving input data instead of participating in decision of what to do and what not to Do. In addition the project office team when each director so as to collect data for system input instead of making change management.

This implies that each director are busy in collecting, arranging, analyzing and sorting input data for the system before stat to use. So during implementation they are new and have no time know what IFMIS is and how government decide to implement it. And they may have other plan that must be accomplished. That is why they resist. However IBEX/IFMIS project team come to each director for assessment but they way and the action they take is considered by the staff of director as data collection. Therefore since the implementation of IFMIS is one of the most critical and new decisions the government and IBEX/IFMIS project office should make change management on each director to make awareness about the system in addition to data collection. That means the, roles and boundaries between the public sector and the lead public sector need to be clearly defined. This partnership is vital to ensuring the success of IFMIS Implementation.

Here from the interviewee response of this question the researcher understand that as the owner and the lead of this system implementation , MOFEC should oversee numerous successful financial system implementations, but how do you strike the right balance of collaboration with the finance team and other team if they don't understand what they involvement is? From this question the researcher understand that due to lack of wariness even the management concluded that the project office assessments must focused on the future operating performance and technical failure rather than data collection and regulatory compliance.

2. ***Do you face any challenges during the implementation of IFMIS in your organization?***

As per the interviewee replied, they face many challenges during the implementation of IFMIS in their organization like infrastructure problem, employee turnover, system complexity and lack of awareness about the system and capacity of their staff to use the system and others listed. Especially thesheer size and complexity of an Integrated Financial Management Information System (IFMIS) poses significant challenges and a number of risks to the implementation process that go far beyond the mere technological risk of failure and deficient functionality according to the interviewee response.

According to all interviewee response there are some of the most common challenges that may be faced by each directorate. According to the interviewee unless the related measures taken these challenges, it is impossible to develop guidelines for better implementation of an IFMIS for other public sectors who do currently use the system. For instance from the above analysis in the questionaries' response due to the absence of good government policy, the government financial rule and regulations is negatively affect implementation of IFMIS in the organization that is why the respondents agree with this statement as shown by a mean of 3.68. However from the interviewee replay they disagree on this response instead they are in question using it to guide the implementation which is also challenge for implementation of IFMIS. And also eve if the questionaries' replay the implementation strategy of IFMIS is good still the project, the management that the researcher interviewed put it questionable to be successful. Which mean there is no good design, proper planning and project management, and the hard work of a dedicated team of professionals. Because they said that we can say good plan and schedule if the project implementation plan should cover immediate, medium-term and long-term IFMIS tasks and objectives, whilst a clear mission statement will help control the project direction, participant expectations and, ultimately, project costs. Because the time span involving the implementation of an IFMIS is so long, it is inevitable that governmental changes, which often lead to structural changes, will occur. The project management implementation plan should therefore be revisited regularly to ensure that the situation has not changed substantially.

And again the effective implementation, operation and maintenance of an IFMIS require staff with the necessary knowledge and skills. But MoFEC as the interviewee replied lack of capacity is regarded as one of the main causes for the delay in the implementation process experienced by their organization, and **t**he lack of staff with IT knowledge and experience cannot be easily remedied by training and hiring in their organization. Because as they told the researcher the salary structure and terms of employment in the public sector are usually not attractive enough to compete with the private sector and to incentivize candidates with the required IT-skills levels. Trained personnel also leave the government service, often for better job opportunities.The interviewee argues that low capacity for system implementation at the national level in Ethiopia, is one of the major challenges in the implementation of IFMIS. Due this they also agree that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within government. And even if the project office give training to end users of the system they disagree that the training will not only include training in the use of the IFMIS for the respective operations and functions, but will also entail training in the new legal and regulatory framework, the new codes and classifications, and the new business procedures put in place. Because A well-defined training program will also assist in building capacity and help build confidence amongst users who, through the process, are reassured that there will be some constants amidst the change. According the management point of view given the nature of institutions and organizations, capacity building is a never-ending process. It needs to be ongoing and permanent.

In addition to lack of capacity all interviewee replied that weak commitment of MOFEC management including them self to change is the other challenge for better implementations. According to their point of view the implementation of an IFMIS is a complex, risky, resource intensive process that requires major procedural changes and often involves high-level officials who lack incentives for reform. That is why they consider the management have week commitment to change. And also even if the management act as committed at the first time, later they forget during implementation. Totally left if for the project office. As

they said experience indicates that the best designed project will fail without firm commitment from all stakeholders involved, including politicians, as well as top management including themselves. Thus, they posit that ensuring project commitment at the highest levels of the political system and of management and continuous participation from the direct users of the system is necessary in all phases of the project.

But in contrary they agree the implementation of IFMIS demands a commitment to change: change in technology; in processes and procedures; as well as changes in skills, responsibilities and behaviors. Due to this and other challenge, they also face institutional challenge to implement IFMIS. As one of the interviewee replied the introduction of an IFMIS involves more than only the automation of public finance tasks and processes. And they identifies a number of institutional issues that should be anticipated and planned. These issues include, amongst other organizational arrangements, the legal framework and business functional processes. However, an IFMIS must be underpinned by a coherent legal framework governing the overall public finance system (Chêne 2009). Amongst other things there should be clear legal guidance on the roles and responsibilities of all institutions in managing, controlling, and monitoring budget execution; the authorization, commitment and release of funds; the basis of accounting (cash or accrual); reporting requirements; and, asset management, public investment and borrowing (Rozner 2008:2). And finally the interviewee replied that they are not sure about IFMIS implementation success due to technical challenges since the basic system functionality was not clearly specified from the onset of the intervention. This implies that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf or custom-built systems that fit the requirements of the specific country.

3. Does your organization use IFMIS effectively now, if not why?

All are agreed that there their organization do not use IFMIS effectively. However, still they use the system with the support of MOFEC IBEX/IFMIS project office team. Some of the interviewee stated that inadequate infrastructure and staff, and the complexity and new nature

of IFMIS is the reason why the use it ineffectively. And also the interviewee also replied that the network problem, employee know how and skill, management and other staff willingness, customization of the system is the major factor for their directorate effective implementation. However the other interviewee disagree with the above interviewee reply. As he says the financial part is effective compared to non-financial part due to the quality of the staff involved. Specially Fixed asset and Inventory part is not effective. And the other one replied in effective use of IFMIS is due to lack of adequate training from project office in terms of time, quality and methodology of training.

4. ***Do the deployment consultants from IBEX/IFMIS Project office come? How much they know the software?***

For this some of the interviewee agree, some other are not agree and some other agree but they understand the team come as a formality and they do not change anything new for the system implementation success and for effective use. Because even the team new for the system according to the interviewee. And they recommended that when implementing an IFMIS, strong project management is critical for the success of the initiative. Project management entails more than managing the technical aspects of implementation. It also involves project planning methodologies to plan, implement and monitor the project, with project management responsibilities clearly identified.

This implies even if the deployment consultants from IBEX/IFMIS Project office come to their director, they are not change anything else. However from the interviewee the researcher understand that an adequate project implementation team should therefore be established, ideally comprising a project manager, a public finance economist, a qualified accountant, a change management or training specialist, an IT-system specialist and a logistics specialist. At the same time, the program manager must have the necessary managerial and leadership skills to direct and co-ordinate diverse activities executed by a wide range of specialists. The team should strive to adhere to the project implementation plan, but there should be flexibility to address inevitable changes, with approval through a program governance structure. According to the interviewee, in order to fulfil this role, the Program Management Office (PMO) works with the IFMIS Program Managers to monitor

the execution of the project schedule and the budget. It is responsible for the development and implementation of policies and processes for the project. Project planning in the PMO is guided by the Project Management Body of Knowledge (PMBOK) framework and uses detailed project planning procedures derived from the Projects in Controlled Environments project management method.

5. ***How the employees of your organization react when they inform the rollout of IFMIS implementation?***

Only giving information. But they must participate how to implement the system including the schedule design. Because when Project office start implementation some department have other plan. That is why some resistance come. This implies the implementation strategy is poor. Because the employee should participate beyond information giving. For instance they participate in scheduling the implementation time table, participating in decision making for what to do and not to do. Because as the interviewee said there is a program clash between the directorate schedule and IBEX/IFMIS implementation schedule. During this time the employee of the directorate either prioritize their task nor resist the implementation of IFMIS.

6. ***Is your organization employee able to implement this financial software effectively?***

For this question all agreed and they need a capacity training for their staff for effective implementation. This implies that the challenges that each directorate faces include access to appropriate IT skills as well as appropriate functional skills by IFMIS users. MOFEC faces significant human capital development challenges in building the capacity required by an IFMIS. The shortage of skilled ICT people in the organization is exacerbated by the emigration of highly skilled ICT personnel and other professionals to the country in general. Therefore, according to the interviewee suggestion, in order to build the necessary capacity, it is important to create a learning environment early in the project and to treat the whole process as a learning opportunity with training being part of an ongoing process. Training should be provided to senior managers, technical staff and end users, and should teach users how to use the new system and how it affects business processes. However, they argue that

the training will not only include training in the use of the IFMIS for the respective operations and functions, but will also entail training in the new legal and regulatory framework, the new codes and classifications, and the new business procedures put in place. Because they believe that well-defined training program will also assist in building capacity and help build confidence amongst users who, through the process, are reassured that there will be some constants amidst the change.

7. What your organizations get from IFMIS implementation? What about employee?

In fact according to World Department definition, integrated Financial Management Information System as the automation of financial operations. Automation is achieved through the use of financial accounting applications and database management systems. The interviewee forwarded the use of FMIS applications is designed to simplify the recording of events, processing of transactions and reporting of financial information in your business. Even if the interviewee agreed that they use IFMIS in effectively, in contrary they also confirm some advantages of IFMIS implementation in their Directorate. Among this:

- ✓ IFMIS application helps them for Quick Decisions by provides timely, accurate, reliable and verifiable information that hasten their decision-making process. Because it provides advanced financial reporting and decision-making procedures for evaluating the merits or shortcomings of your operational and strategic approaches to business. This reduces uncertainties that may derail their implementation of important business decisions.
- ✓ Implementation of IFMIS enhances your scheduling and forecasting capacity or planning. This enables them to allocate their financial resources effectively and set realistic performance targets. The realistic planning capacity also accelerates the achievement of their goals within the desired time frame.
- ✓ According to their thought, they stand to achieve greater efficiency in financial operations and reporting procedures when using IFMIS applications. These systems entrench the controls they need to eliminate misuse of financial resources, but also the mitigation measures they employ to protect their business against the occurrence of expected and unexpected risks. The control measures also provide the historical evidence of performance they need to regulate the current and future activities of the business.

- ✓ Also IFMIS provides them with a framework for integrating functional processes and financial resources in their business. This accelerates the processing of transactions and conveyance of financial information, in addition to eliminating duplicate activities and responsibilities along the organization's chain of command.

This information implies that according to their response since IFMIS enables efficient resource allocation mechanisms; improves management information for decision making; Improves accounting, recording and reporting through timely, accurate financial data provision; improve efficiency and controls: improve confidence through transparency and improve budgets, planning and decision making, they do not resist IFMIS rather the way how IFMIS implement. From this researcher understand that these MOFEC management and Directorate director are interested for IFMIS implementation but not committed to do so. Because instead of Participating for implementation they only expect from project office. If they know the advantage they must be actively participate for its effective implementation.

8. ***In general, how can MOFEC IBEC/IFMIS project office assist in developing and maintaining the system?***

According to the interviewee, IBEX/IFMIS project office assist in developing and maintaining the system inadequately. Because before the system start each directors project office give for their employee five day training and two or more week after training they start system implementation, which is when the trainee forget the system training. In addition during implementation they solve the problem without showing the users of the system and they have no legal frame work to solve the problem happened. This implies that the project office mechanism to assist in developing and maintaining the system is not adequate. Which is the project office do not make change management adequately, ensuring project commitment, creating a legal framework, solving technical challenges and capacity building and training.

9. ***What do you say about the factors affecting IFMIS implementation in government organizations?***

According to the interviewee replay, factors affecting effective implementation of IFMIS in the Ethiopian Public Sector include staff resistance, top management commitment, system complexity, staff capacity and other related factors like implementation strategy and financial frame work guideline problem. However, they group all factors as infrastructure factor and human resource quality factors. Here the interviewee recommend the researcher to focus on the Critical Success Factors in the Implementation of IFMIS in the Government Ministries especially on: User involvement in the implementation process, clear goal setting, top level management support, appropriate infrastructure and support.

10. Finally, I start study on factors affecting IFMIS implementation in the government organization. What do you advise me?

All the interviewed management and director motivated me to do so and they promise me to support me for any information about IFMIS implementation factor at any time until the researcher complete the study. In addition in the researcher side they want to see what finding, conclusion and recommendation the researcher reached for their IFMIS implementation success.

CHAPTER FIVE

FINDINGS OF DATA ANALYSIS, CONCLUSION AND RECOMMENDATIONS

This part of the study tries to summarize and conclude the key findings which arose out of the study and pass possible and recommendations as remedies to alleviate the existing andobservable potential hurdles.

5.1. FINDINGS OF DATA ANALYSIS

Inthis section the researcher tries to recapitulate the key findings which arose out of the study. As it has been indicated earlier in the previous chapters, the main objective of this study is describe the factors affecting the implementation of integrated financial management information system in Ethiopia Public Sector. Due to this the researcher distributed 30 questionnaires related to six focus area to 88 respondents and interviewed 5 directors to analyze the factors affecting theimplementations of IFMIS in Ethiopian Public Sector. Thus, from the questionaries' distributed to respondents, the researcher collect only 79 respondents response and analyzed with descriptive statics using SPSS version 17. Therefore, on the basis of data obtained from the respondents through questionnaires and interview as well as different documents and reports of IBEX/IFMIS project office, interpretation an analysis of data made were summarized below.

From the interview that the researcher made, the government of Ethiopia start implementation of IFMIS without proper plan and schedule. Also the government start without study. Because they told the researcher that before IFMIS implementation the government first check the availability of infrastructure that IFMIS required, the human power that the government have especially in property administration staff. And also recheck the government financial policy and should fist study and design the implementation strategy. In addition to this one of the respondent from interview said that the government should clear all public sector managements who is not committed for any change and aware all the oldies staff who resist technology. From IBEX?IFMIS project office 2015/2016

annual report of IFMIS performance the researcher found that the current status of IFMIS is still questionable due to different reasons.

In addition to this from the data analyzed from questionaries' the researcher found that all more than half present of the respondent agreed that in the country government here is no implementation of policy in regard to use of IFMIS in the organization, the government is not ensure that there is compliance/conformity on the usage of IFMIS in the public sectors. And also they believed that most public organization office structure and arrangement and some government policy is not comfortable for the implementation process. Even MoFEC does not play a great role for IFMIS implementation using Government finance legislation framework to influence public sectors in the implementation of IFMIS since MOFEC is leading owner. In addition to these the respondents disagreed that Government financial rule and regulations is influence implementation of IFMIS in the organization. But the management that the researcher interviewed agreed that the government have good government policy, except using the policy is questionable. They agree the policy only paper value. Forints ace government declared program budgeting but still we use for the system in line item budgeting even if the system can program budgeting.And also the data analysis the researcher found that the respondents agreed theimplementation strategy for IFMIS have good plan and schedule; implementation of IFMIS continuous being assessed & managed; public sectors firstly informed and assessed to make themselves ready for IFMIS before start; there is organized change management team from IFMIS Project office to create awareness about IFMIS have adequate & Skilled IFMIS implementation team to run implementation. However for this from the data collected from interview analysis, the researcher found thatthe management that the researcher interviewed put it questionable to be successful. Which mean there is no good design, proper planning and project management, and the hard work of a dedicated team of professionals. Because they said that we can say good plan and schedule if the project implementation plan should cover immediate, medium-term and long-term IFMIS tasks and objectives, whilst a clear mission statement will help control the project direction, participant expectations and, ultimately, project costs. Because the time span involving the implementation of an IFMIS is so long, it is inevitable that governmental changes, which often lead to structural changes, will occur. The project management

implementation plan should therefore be revisited regularly to ensure that the situation has not changed substantially.Also the researcher found from data analysis that respondents were disagree on whether county government have adequate capacity and Skill of IFMIS Users, committed top management, change resistance and availability of information technology and related infrastructure.

5.2. CONCLUSIONS

It is clear from the findings that most organizations undertake proper change management when integrated financial management information systems (IFMIS) were introduced to their respective counties. The goals and objectives of IFMIS were clearly communicated between change management team but not forwarded to the users due to top management resistance and tied government rule and regulations; Organization has no capacity to make changes, manage changes and survive while resistance; and management is not actively involved and supportive of the implementation process and not assists & encourages employee in IFMIS adoption and not allocates enough financial to IFMIS implementation. These factors contributed to the resistance and negative attitudes towards IFMIS, thereby making the implementation process ineffective. This is in line with Muriuki (2009) research which studied Challenges Facing the Ministry of Finance in the Adoption of Automated Financial System. In his study he concluded that the major challenge was resistance to change brought about by fear of the unknown, not enough training, fear of redundancy and the fact that IFMIS ensured transparency leading to detection of fraud thus challenging the existing corrupt systems. It further recommended that ICT equipment and training be increased to boost employee awareness and that senior government official's show more support and commitment to the implementation of IFMIS. Diamond and Khemani (1999) in a World Bank study on the introduction of IFMIS in five countries also recommended that: "careful evaluation of the salaries and package for the relevant staffing both public and private sector should be done including an assessment of the implications of improved salaries for the broader public sector environment. Such a strategy would aim at striking balance between the need to attract/retain qualified staff".

In addition to this top management is not takes action when the employee faces challenge during implementation and they are not trying to their best for the critical success factors to the implementation of IFMIS. That is why every employee of the organization is not happy for the implementation of IFMIS in their organization and resist the change. According to Diamond and Khemani (2005) in their IMF working paper on IFMIS in Developing Countries, sought to investigate the reasons for the almost universal failure to implement and sustain IFMIS in developing countries. They found that senior managers in DCs rarely delegate responsibility and lack experience in computerized accounting, and are therefore unable to grasp its possibilities for financial management. In this environment, there is likelihood that systems will not be user friendly, will not match the needs of the managers and will not have the required level of management ownership. They recommended that IFMIS implementation should have a solid backing at the political level which will then trickle down to management level, citing this as the reason Tanzania's IFMIS implementation was the most successful in all Anglophone countries. Due to this there is need that introduction of an IFMIS be accompanied by strong commitments, sufficient manpower and financial resources, widespread internal support and an agenda for effective change management (World Bank, 1994).

As the respondent agreed in the good IFMIS implementation strategy the researcher concluded that since implementation strategy is positively correlated with other independent variable, it' effectiveness affected. For instance according to respondents response organization top management is not actively participate when the employee faces challenge during implementation; not try their best for the critical success factors to the implementation of IFMIS due to lack of awareness about the benefits of IFMIS and some management didn't want the implementation of IFMIS personally. That is why the management of the organization is not assists & encourages employee in IFMIS adoption; not allocates enough financial to IFMIS implementation and not manage how employee use implementation strategy as well. Kerzner (2013) states in a study on Project management: a systems approach to planning, scheduling, and controlling funds that goes beyond managing the technical aspects of implementation. An adequate project implementation team should be set up, ideally comprising a project manager, a public finance economist, a qualified accountant,

a change management/training expert, IT-system experts and logistic experts. It is recommended to set up a steering committee to oversee the process at the highest level, chaired by a high-level figure, such as the Minister of Finance, that meets regularly and produces minutes on issues and milestones (Indeje&Zheng, 2013).

And also the government policy influence IFMIS implementation strategy in public sector in the organization. The existing IFMIS policy influence it's Implementations but the government has not done much to ensure there was compliance on the usage of IFMIS in the organization. The implementation of policy was inadequate. Because most of project office team spent their time in customization instead of adoption due to rigid government policy. And from data analysis finding the researcher concluded that the paper value of government policy also recheck how much used and the implementation strategy amended continuously by evaluating the performance of the implementation. However, it is important to have clear legal guidance on the roles and responsibilities of all institutions involved in the implementation of an IFMIS. According to Dzidonu(2011)a legislative framework consists of the constitution, finance act and regulations, and needs to include: the roles and responsibilities, of the treasury, and other departments responsible for the control and management of public finance, the main form of government funds, receipt and custody of public funds, the annual process, submission and approval of estimates and the procedures for release of funds, the basis of accounting and the form of annual accounts for audit and presentation to Parliament and asset management and control, borrowing and investment.

According to Rodin-Brown (2008), the best way to overcome resistance is to sell the changes, relying on credible national resources to deliver the message. The selling can be done through a variety of media: workshops, seminars, training sessions, a website, conferences, or newsletters. When we see this study respondent response on staff resistance, the implementation of IFMIS result in job losses for some employee when they restructure the staff. Due to this organization should has capacity to make changes, manage changes and survive while resistance. But in reality it is not happen. That is why some employee resists the implementation of IFMIS without any reason in addition to the reason of losing job. And the organization has not devised (think) convenient methods of overcoming change

resistance. These factors negatively affect the effective implementation of IFMIS in Ethiopian public sectors.

According to (Ameen& Ahmed, 2011), Modern ICT is a significant strategic tool for lifting public sector performance, offering benefits of greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organizational boundaries and levels of government, and greater transparency and accountability in government functions. However from the study finding the researcher noted that MOFEC had not provided the technological infrastructure required for the implementation of IFMIS in terms of software, hardware and internet connectivity. And no organization has rolled out IFMIS beyond the headquarters to their branches except Addis Ababa Universities and Ethiopian Revenue & Custom Authority. This means that all IFMIS operations are still handled centrally, which leads to slower processing of transactions rather than real time, and creates a loophole for more transactions at the branches to be handled manually. Because power inconsistency in the government organization: network dependency nature of IMFIS ; adequate ICT related equipment in your organization and the absence of adequate reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization is negatively affect organizational implementations.

Human capital development issues seem not to have been dealt with properly. Hove & Wynne(2010) contend that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within government. However, in Ethiopian Public Sector employee requisite knowledge & expertise for effective implementation, operation, & maintenance of IFMIS since they have no adequate know how about IFMIS and it is a new system for the country. In addition organization have not taken necessary measures to develop requisite skills & capacity of the central IT department and did not arranges & provide adequate IFMIS training for the staffs of the organizations. Even they are not taken necessary measures to reinforce capacity of staff for effective implementation of IFMIS. According to Durevall and Erlandsson (2005) found that one of the reasons for failure of

IFMIS in Malawi was due to the fact that the salary structures and terms of employment in government were not attractive and flexible enough to keep staff at the technical and professional level, when there were better employment opportunities in the private sector. Generally, most counties did not provide adequate training on IFMIS to their staff; there are no regularly planned skills upgrading courses for IFMIS; and low motivation to retain IFMIS trained staff in the counties. Rodin-Brown (2008) proposes that capacity building and training need to be scoped out early in the implementation process. The different user groups have to be identified; their levels of knowledge determined; recruiting needs established; and training curricula explored. Training programs need to address various audiences, from senior members of the bureaucracy down to mid- and entry-level civil servants.

Finally in this study, the researcher determined that the management of the organization is not supportive of the IFMIS implementation process; the counties have not allocated enough resources towards IFMIS; and their strategic plans do not have long term plans towards the support of IFMIS. Management will is very important towards the success of the implementation as Rodin-Brown (2008) notes that successes like the Slovak Republic were the result of real acceptance, at the highest levels of the political system. According to Mzyece (2006), funding e-government programs such as IFMIS should be viewed as investments rather than merely as an expense. The aggregate "return" on these investments in terms of service delivery, operational efficiencies, cost savings and increased revenues could then be quantified in a well-defined index. The use of IFMIS has helped to curb corruption, and made preparation of reports easier and more transparent.

5.3. RECOMMENDATIONS

In this sections the researcher put recommendation standing from the study finding and the researcher conclusion. So the study recommended that owner of the system (MOFEC) should uphold the strategic plan that identifies all the constraints that derail implementation of IFMIS. Further, it is recommended that MOFEC should enhance their capacity to make changes and to manage changes and to survive while changing. In addition, organizations should institute strategies to minimize resistance to change and formulate guidelines for successful IFMIS implementation. Moreover, MOFEC should conduct capacity building

exercises to ensure that the teams and key personnel involved in IFMIS are equipped with the necessary skills to provide a robust support to IFMIS and its implementation.

The study further recommended that MOFEC IBEX/IFMIS project office should focus on reinforcing capacity in the IFMIS project team and ensure continuity of key personnel in the system's development and implementation through upholding the salary structure and the terms of employment to match the private sector and further conducting capacity building to its personnel through training. Moreover, only personnel with requisite knowledge, experience and expertise for effective IFMIS implementation, operation, and maintenance should be engaged. Because all public sectors should have good Human resource management by planning staff management to identifying and documenting project roles, responsibilities, required skills, reporting relationships, and creating a staffing management plan; by acquire implementation team to confirming human resource availability and obtaining the team necessary to complete project activities; by develop implementation team to improving competencies, team member interaction, and overall team environment to enhance project performance and ;by managing implementation team to track team member performance, providing feedback, resolving issues, and managing changes to optimize project performance. Therefore, for the counties to have a more effective implementation of IFMIS, they should seek internal acceptance of IFMIS by all stakeholders by educating them more on the benefits; consulting them more; and management should lead by example by being more proactive and supportive. Skills upgrading courses should be planned more regularly for staff working with IFMIS both by government and the organizations itself; and motivation provided to retain the trained staff in the counties.

The government should also create an enabling environment to lure the external consultants with the right skills and capacity. In the long term, in order to curb the low demand of ICT professionals, public sectors should continue upholding the alignment of its education system with the information technologies. And the technological infrastructure required to roll out IFMIS to the public sectors should be provided to decentralize operations from the MOFEC. The top management should also change their attitudes towards IFMIS and provide more support and leadership; adequate resources should be allocated towards the implementation

of IFMIS; and the organizations should include long term plans towards the support of IFMIS in their strategic plans since the benefits of IFMIS are already being realized. And finally the researcher recommend that IFMIS implementation should re check according to Government policy and the government policy should re check again according to IFMIS standardization to reduce System customization due to policy rigidity and good implementations strategy have no value unless it used and should be continuously amended based on the progress and performance of implementation. So MOFEC recheck IFMIS implementations strategy according to other factor which affect the implementation of IFMIS beyond listed factors.

5.4. SUGGESTIONS FOR FURTHER RESEARCH

Since devolution is still a relatively new phenomenon in Ethiopian Public Sector, and IFMIS was introduced shortly after, not studies have dealt with the issue of IFMIS in the counties. Further research therefore, should be done on the impact of IFMIS on the public financial management of Ethiopian public sectors; the influence of resistance from staff, corrupted managers and politicians will on effective implementation of IFMIS in the county governments; challenges faced by the MOFEC when they rollout the implementation of IFMIS; and which factor significantly affect the implementation of IFMIS in public sectors.
Therefore, since this study sought to establish the factors that affect the implementations of IFMIS in Ethiopian Public Sector, it was established that from literature review that there are no scanty studies available on the factors that affect the implementations of IFMIS in Ethiopian Public Sector specifically in a government ministries of Ethiopia the researcher recommends for similar studies to be undertaken in other ministries for generalization of the findings of this study.

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APPENDEX

Appendix A: Questionnaires

Dear Sir/Madam

The intent of this questionnaire is to explore information regarding the determinants of implementation of IFMIS in your organization. The questionnaire will distribute to some of purposely selected employee of your Organization who uses the system. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of *the determinants of the implementation of Integrated Financial Information System in Ethiopian Public Sector*. The results of the study are anticipated to the understanding and solving of the determinants of IFMIS implementation in Government organization for effectiveness implementation throughout Ethiopia in particular and be used to obtain insight in relation to financial institutions in general.

If you wish to withdraw or have any questions, please feel free to contact **Mohammed Alemu** at **+**251-912-844543 or send an email to ***mamg143@gmail.com***. I would like to assure you that the information you provide will be accessible only to the researcher. And please return the questionnaire directly to the researcher. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study.

Your honest and thoughtful response is invaluable

Thank you for your participation

Kind regards,

Mohammed AlemuWussen, MSc student
Addis Ababa University
College of Business and Economics
Department of Accounting and Finance
July 2017

Section I: General Instruction

This questionnaire contains **35** questions in **3** pages and is expected to take approximately 5 to 10 minutes to complete. Please provide your responses to the questions based on the instructions under each section. If you have comments or if you want to provide further explanations, please use the space provided at the end of the questionnaire.

Below are lists of statements pertaining to IFMIS implementation Factors in your organization. Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from "strongly agree" to "strongly disagree".

Note: SA- Strongly Agree, A- Agree, DA- Disagree, N- Neutral and SD- Strongly Disagree

Questionaries' of the study to get respondents response about factors affecting the implementation of IFMIS in Ethiopian Public Sector

Here below the researcher grouped all 30 questionnaires in six groups such as questionaries' related to government policy, implementation strategy, capacity & skills of IFMIS users, top management commitment, staff resistance and the availability of ICT infrastructure to make clear the questions for the respondent based on the questionaries' focus area.

Please indicate to what extent you agree with the following expressions. Please put tick mark (√) on the spaces that specify your choice from the options that range from "strongly agree" to "strongly disagree".

A. List of questionaries' related to Government Policy focus area	**1 SDA**	**2 DA**	**3 N**	**4 A**	**5 SA**
1. There is no implementation of policy in the country in regard to use of IFMIS in the organization.					
2. The government is not ensure that there is compliance/conformity on the usage of IFMIS in the organization.					
3. The government policy as well as the structure of the organization is comfortable for the implementation process.					
4. MoFEC play a great role for IFMIS implementation using Government finance legislation framework.					

5. Government financial rule and regulations is not influence performance of IFMIS in the organization.					

B. List of questionaries' related to Implementation Strategy focus area	**1 SDA**	**2 DA**	**3 N**	**4 A**	**5 SA**
6. IFMIS implementation strategy in your organization have good plan and schedule.					
7. The implementation of IFMIS Project continuous being assessed & managed.					
8. The implementation of IFMIS information is not kept secure when started in your organization.					
9. There is organized change management team from IFMIS Project office to create awareness about IFMIS.					
10. The MOFEC have adequate & Skilled IFMIS implementation team to run IFMIS implementation.					

C. List of questionaries' related to Capacity and Skill of users focus area	**1 SDA**	**2 DA**	**3 N**	**4 A**	**5 SA**
11. Your organizations has personnel with requisite knowledge & expertise for effective implementation, operation, & maintenance of IFMIS.					
12. Every employee of the organization have adequate know how about IFMIS.					
13. Your organization has taken necessary measures to develop requisite skills & capacity of the central IT dept.					
14. Yourorganization arranges & provide adequate IFMIS training for the staffs of the organizations.					
15. Your organization has taken necessary measures to reinforce capacity in IFMIS project team					

D. List of questionaries' related to Top Management commitment focus area	**1 SDA**	**2 DA**	**3 N**	**4 A**	**5 SA**
16. Top management takes action when the employee faces challenge during					

implementation.					
17. Top management of the organization tries their best for the critical success factors to the implementation of IFMIS. E.g. making the environment conducive for implementation.					
18. Top management in your organization has awareness about the benefits of IFMIS.					
19. Top management of your organization assists & encourages employee in IFMIS adoption.					
20. Top management in your organization allocates enough financial to IFMIS implementation.					
21. The management of your organization strongly needs the implementation of IFMIS.					

E. List of questionaries' related to staff Resistance focus area	**1** **SDA**	**2** **DA**	**3** **N**	**4** **A**	**5** **SA**
22. Your Organization has capacity to make changes, manage changes and survive while resistance					
23. Every employee of the organization is happy for the implementation of IFMIS in their organization.					
24. Some employee resists the implementation of IFMIS without any reason.					
25. Your organizationhas devised (think) convenient methods of overcoming change resistance					
26. The implementation of IFMIS result in any job losses for some employee.					

F. List of questionaries' related to ICT Infrastructure focus area	**1** **SDA**	**2** **DA**	**3** **N**	**4** **A**	**5** **SA**
27. There is power inconsistency in the government organization which affects the implementation process.					
28. The network dependency nature of IMFIS is the major implementation challenge.					
29. In adequate ICT related equipment in your organization hinder the implementation of IFMIS.					
30. There is no reference manual for use of IFMIS & adequate computers for					

the staff to use for IFMIS in the organization.					

Section II: Employee Profile

Instruction: The following questions are designed to obtain some demographic information that is important to this study. Please provide your response by ticking (√) or writing.

1. Sex □ Male □ Female
2. Age (Years) □ below 25 □ 25-35 □ 35-50 □ above 50
3. Educational Level □ 10/12 grade complete □ Certificate □ Diploma □ Degree □ Above Degree
4. Number of years of experience as an employee of your organization _____ Your experience in using IFMIS _____
5. Professional certifications (if any) _____

Additional comments

_____

_____

_____

_____

_____

Appendix B: Interviews

Dear Sir/Madam

The intent of this interview is to explore information regarding the determinants of integrated financial management information system (IFMIS) implementation in government organization to have sufficient response to the research problem in addition to questionnaires distribute to the random selected employee of your organization. This interview will make with 5 purposely selected individuals who follow the performance of IFMIS implementation in your organization. The information obtain in response to the items in the interview will be used as part of the data needed for a study of *determinants of IFMIS the implementation in Ethiopian Public Sector*.

I would like to assure you that the information you provide will be accessible only to the researcher. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study.
Your honest and thoughtful response is invaluable
Thank you for your participation
Kind regards,

Mohammed AlemuWussen, MSc student
Addis Ababa University
College of Business and Economics
Department of Accounting and Finance
July 2017

Interviews

General information in relation to the Internal Audit Functions

11. What your Directorate do before starting IFMIS implementation? Is there any rollout assessment team come from MOFEC?

_____
_____

12. Do you face any challenges during the implementation of IFMIS in your organization?

_____
_____

13. Does your organization use IFMIS effectively now, if not why?

_____
_____

14. Do the deployment consultants from IBEX/IFMIS Project office come? How much they know the software?

_____
_____

15. How the employees of your organization react when they inform the rollout of IFMIS implementation?

_____
_____

16. Is your organization employee able to implement this financial software effectively?

_____
_____

17. What your organizations get from IFMIS implementation? What about employee?

_____
_____

18. In general, how can MOFEC IBEC/IFMIS project office assist in developing and maintaining the system?

_____
_____

19. What do you say about the factors affecting IFMIS implementation in government organizations?

_____
_____

20. Finally, I start study on the factors affecting IFMIS implementation in the government organization. What do you advise me?

_____
_____